

ALASKA LEGISLATURE COMMITTEE FILES 1983-1984 8672

2391 SHESS HB 225 (FILE 1) - (FILE 3)

UTILIZATION OF PHARMACEUTICAL AGENTS BY OPTOMETRISTS

<u>NAME</u>	<u>DATE OF ENACTMENT</u>
Rhode Island	July 16, 1971
Pennsylvania	March 1, 1974
Tennessee	May 8, 1975
Oregon	May 20, 1975
Maine	June 24, 1975
Louisiana	July 6, 1975
Delaware	July 10, 1975
*West Virginia	March 4, 1976
California	July 9, 1976
Wyoming	February 17, 1977
New Mexico	March 4, 1977
Montana	April 12, 1977 (at 10:10 a.m.)
Kansas	April 12, 1977 (at 2:00 p.m.)
*North Carolina	June 3, 1977
Kentucky	March 29, 1978
Wisconsin	April 29, 1978
Nebraska	February 13, 1979
South Dakota	March 15, 1979
Utah	March 21, 1979
North Dakota	March 22, 1979
Arkansas	April 2, 1979
Nevada	May 25, 1979
Iowa	June 8, 1979
Georgia	February 14, 1980
Arizona	April 1980

*both diagnostic and therapeutic

[In addition, there are eight (8) other states that do not statutorily prohibit the use of DPAs by optometrists; several of these states have attorney general opinions (+favorable) (-unfavorable) on this point: Alabama (AG-), Florida (AG+), Idaho (State Board Statement +), Indiana (AG+), Michigan (AG-), Minnesota, New Jersey (AG+), Virginia (AG-).]

For your information we are including an updated map showing geographically the utilization of pharmaceutical agents by optometrists.

Public Benefits of the Legislation

1. Availability of Services

Ophthalmologists are located in only 5 Alaskan cities: Anchorage, Fairbanks, Juneau, Ketchikan and Soldotna. Optometrists are located at the following cities not served by ophthalmologists: Sitka, Kodiak, Bethel, North Pole, Wasilla, Palmer, Kenai. In most of these cities, a patient with minor eye disease has no practical recourse but to see a general physician, who does not have the optometrist's degree of training in differential diagnosis or the instruments with which to accomplish the diagnosis. Since optometrists make trips to many rural and bush areas, they can provide basic eye health services to villages now principally served by health aides, with 6 to 24 weeks of training and having only radio contact for doctor consultation.

2. Quality of Services

Besides their obvious value to the health aide system, optometrists can serve as a valuable resource to physicians in cities not served by an ophthalmologist. This occurs with the optometrist employed by the native health corporation in Bethel (not bound by the drug restrictions of the Alaska optometry law). General physicians, to their credit, tend to refer patients to the most qualified practitioner in their area. It is not surprising therefore, that MDs in Kodiak have endorsed previous drug usage bills in optometry.

3. Cost of Services

Just as a general practitioner charges a lower fee (typically half) than does a specialist for doing similar work (obstetrics, pediatrics, etc.), so an optometrist (a generalist and primary care provider with respect to the eye) can be expected to charge less for treating minor eye diseases than does the ophthalmologist (the specialist).

Criticism of the Legislation by Ophthalmologists,
and Answers to the Criticism

1. The legislation is not necessary. The present system of ophthalmologists, general practitioners and health aides handles the eye care needs of Alaskans quite well.

Doctors of optometry are an underutilized resource. They can deliver services of higher quality, at greater availability and lower cost than can the existing system alone.' This is detailed in the section entitled, Public Benefits of the Legislation.

2. Optometrists claim competency, but their training programs are inadequate, particularly as to qualifications of faculty, and clinical experiences available to their students.

Optometry schools receive state and federal funds, and are accredited by both regional and professional accrediting organizations. It is not in the interest of schools or the profession at large to allow inadequate programs to exist in this sensitive area, for the sake of saving money. All optometric faculties include MDs, and PhDs in such specialized fields as physiology, pharmacology, biochemistry and microbiology. Many are present or past members of medical school faculties. With drugs, as in other areas of the professional curriculum, optometrists are trained well beyond the level at which they must function in day to day practice. While it is impossible to have too much clinical experience, optometry students enjoy more than adequate exposure to the common eye diseases they must deal with. In their two years of clinic experience, they see much more eye pathology than general medical students, but less than residents (trainees) in ophthalmology. Many rare eye diseases will not be seen in a three year residency in ophthalmology.

3. Optometrists can detect abnormalities but cannot diagnose. Treatment requires, first of all, an accurate diagnosis.

Optometrists can diagnose some eye diseases; definitive diagnosis of others requires specialized examination by the ophthalmologist. At still other times, consultation with the specialist will allow a diagnosis to be made. The same is true for a general physician or for a specialist whose case lies partly in the province of another specialist. No practitioner is going to be foolish enough to treat a case if he isn't sure what it is, if more competent authority is reasonably available.

Criticism and Answers (cont.)

4. Optometrists study the eye but they are not trained in broad medical principles. The general physician knows the entire body and can generalize certain principles to the eye even though he may not have as many hours of study specifically in the eye as the optometrist.

Optometrists study general anatomy, physiology, pathology and pharmacology precisely because certain general principles need to be understood before considering a particular organ system like the eye. The educational model is similar to dentistry. In both professions, the body as a whole is studied in less detail than is done by medical students, because neither are treating kidney disease or setting broken legs. Yet the necessary general principles are learned. Both dentists and optometrists are medically trained, in ways that are appropriate to their respective fields of work.

5. Given drugs for diagnosis and some treatment, ODs would go in over their heads, attempt to be ophthalmologists.

This is not the case in other fields and there is no evidence that it has happened or will happen in optometry. Malpractice insurance rates are no higher in drug states than in non-drug states. Besides a basic conservatism common to all professionals, optometrists are constrained by the knowledge that their malpractice insurance coverage does not extend to activities that are outside their recognized scope of practice.

6. Defining procedures "as taught by schools and colleges of optometry" is too general, could allow the optometry board to do almost anything.

"As taught" is purposely general, to allow the board to react to continuing changes in the education of the profession. It is the responsibility of the board, as an agency of the State of Alaska, to know the areas in which optometrists are trained and educated, to examine them for competence and license or fail to license them accordingly. Most board members are also practitioners. It is not in their interest to license fellow practitioners to do procedures that could bring discredit to the profession or raise malpractice insurance rates. This is also true of other health care regulatory boards.

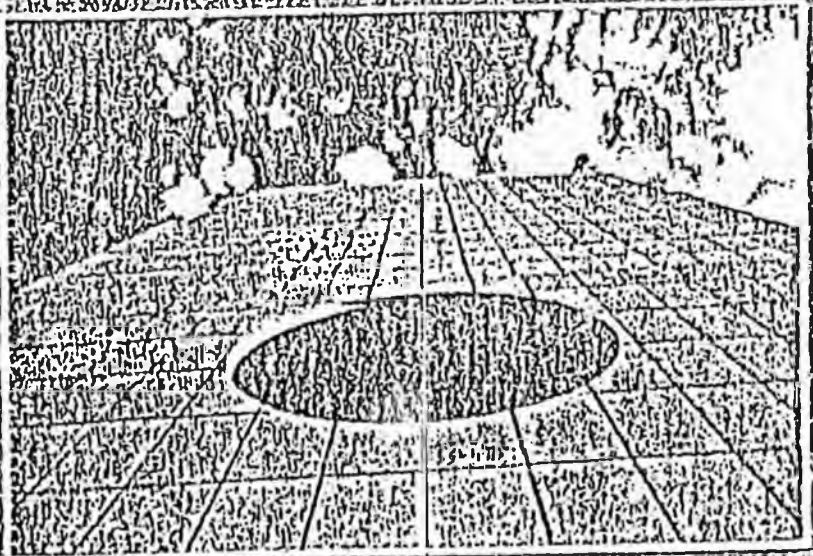
7. Drug usage by optometrists constitutes competition in the historical province of ophthalmology.

Ophthalmologists, nationally and in Alaska, tend to concentrate in urban areas, where they spend a majority of their time practicing optometry. In the last 15 years they have entered the field of contact lenses, an area pioneered by optometry. Much earlier, their predecessors (oculists), entered the optometrists' field of refraction after abandoning the belief, common among Victorian era physicians, that glasses weakened the eyes. Competition both ways is appropriate. It is not in the public interest to exclude a qualified bidder from the marketplace.

APPENDIX

Full curricula of optometry and medical schools
compared in Exhibit B

Southern College
of Optometry
plus the best in
education available



Southern College of Optometry Catalog 1979-80

Non-Profit
Organization
U.S. Postage
PAID
Memphis, TN
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40 OPTOMETRY PROGRAM

FOURTH PROFESSIONAL YEAR (CONTINUED)

SPRING QUARTER

			HOURS CREDIT
Optometry	430	Optometry Seminar: Current Problems (3 HRS. LEC.)	3
Optometry	431	Clinical Case Analysis III (2 HRS. LEC.)	2
Biomedical	432	Vision Science Seminar: Current Problems (2 HRS. LEC.)	2
Clinic	430	General Clinic Practice VII (1 HR. LEC., 16 HRS. LAB)	5*
Clinic	431	**Specialty Clinics (Two required, each for 1 Qtr. Hr. of credit) (8 HRS. LAB)	2
			<hr/>
TOTAL			14

*Credit will be reduced by 1 quarter hour after 1979-80.

**A minimum of two quarter hours of credit each must be completed in Contact Lenses and in Orthoptics & Vision Training, during the fourth year, as well as a minimum of one quarter hour of credit in Pathology. Additional clinic rotations may be selected from Geriatrics, Low Vision, Dermatology, Neurology, Pediatrics, Neurophysiology, or any other approved clinical area.

BIOMEDICAL SCIENCES 47

COURSE DESCRIPTIONS

Courses numbered in the 100 series are for first professional year students, 200 for second professional year students, 300 for third professional year students, and 400 for fourth professional year students. The letter E following a course number indicates that the course is offered for college credit through the Continuing Education Program. The four-year program provides more than 4000 clock hours of instruction in optometric science and clinical optometry and carries a minimum of 232 quarter hours of credit.

The curriculum is organized for administrative purposes into three departments: Biomedical Sciences, Optometry and Clinic. The Biomedical Sciences Department is inter-disciplinary, offering sequences in anatomy and physiology, chemistry, physics, physiological optics and psychology. The Optometry Department offers diversified instruction in all phases of optometric theory and practice. The Clinic Department offers extensive experience in out-patient vision care.

BIOMEDICAL SCIENCES DEPARTMENT

110 HUMAN ANATOMY & PHYSIOLOGY I:

STRUCTURE & FUNCTION

(6 quarter hours)

Five hours of lecture and one two-hour laboratory per week. A course covering basic cell biology, general human embryology, ocular embryology and histology, with detailed emphasis on the tissue structure of the eye and ocular adnexa. The gross anatomy of the human body is studied, particularly the skull, circulatory system of the orbit, orbital contents, and ocular adnexa. The course also includes general physiology of the organ systems.

111 VISUAL OPTICS I: PHYSICAL AND GEOMETRICAL OPTICS (5 quarter hours)

Three hours of lecture and one two-hour laboratory. A detailed study of the variations in light rays between different optical media. Includes the theory of: rectilinear propagation, reflection and refraction at plane, spherical, and cylindrical surfaces, and thin lenses.

120 HUMAN ANATOMY AND PHYSIOLOGY II: STRUCTURE AND FUNCTION (6 quarter hours)

Five hours of lecture and one two-hour laboratory per week. Continuation of 110.

121 VISUAL OPTICS II: PHYSICAL AND GEOMETRICAL OPTICS (4 quarter hours)

Three hours of lecture and one two-hour laboratory. A continuation of Bio 111. Includes the Gaussian system, the schematic eye and its applications, selected optical instruments, common aberrations, and the effect of apertures. Prerequisite: Bio. 111.

- 122 **VISUAL PERCEPTION: PSYCHOPHYSIOLOGICAL OPTICS** (5 quarter hours)
Four hours of lecture and one two-hour laboratory per week. An introduction to Vision Science, which involves the behavior-scientific approach to understanding vision and visual perception. Special emphasis is placed on monocular visual function and on the theories and data relevant to visual perceptions.
- 130 **HUMAN ANATOMY AND PHYSIOLOGY III: STRUCTURE AND FUNCTION** (6 quarter hours)
Five hours of lecture and one two-hour laboratory per week. Continuation of 120.
- 131 **VISUAL OPTICS III: PHYSICAL AND GEOMETRICAL OPTICS** (4 quarter hours)
Three hours of lecture and one two-hour laboratory per week. Physical Optics comprises those phenomena bearing on the nature of light, including processes which involve the interaction of light with matter. Some topics considered are nature and propagation of light, photometry, dispersion, interference, diffraction, polarization, and spectra.
- 133 **VEGETATIVE PHYSIOLOGY: OCULAR BIOCHEMISTRY** (3 quarter hours)
Three hours of lecture per week.
Analysis of the intraocular fluids, aqueous chemistry and flow; secretory mechanism, intraocular pressure; vitreous structure and protein; lens and its function related to its composition. Lens proteins, metabolism cataract. The cornea and sclera; metabolism, nutrition and growth processes; retinal metabolism, glycolysis.
- 210 **PRINCIPLES OF MEDICINE I: GENERAL PATHOLOGY** (4 quarter hours)
Three hours of lecture and one two-hour laboratory per week. An introduction to reaction of the body as a whole to disease. Injuries including genetic, metabolic, infectious, immunologic degenerative, hemorrhagic and neoplastic processes are reviewed.
- 211 **PHYSIOLOGICAL OPTICS I** (4 quarter hours)
Three hours of lecture and one two-hour laboratory per week. A study of the eye as an optical system including the dioptric and physiological components, and the functioning of the visual system.
- 212 **NEUROANATOMY AND NEUROPHYSIOLOGY I** (4 quarter hours)
Three hours of lecture and one two-hour laboratory per week. Embryological development, structure, and function of the nervous system are studied. Functional components of the nervous system with special reference to modifications are studied.
- * 213 **PRINCIPLES OF PHARMACOLOGY AND THERAPEUTICS** (2 quarter hours)
Two hours of lecture per week. The course covers basic principles of pharmacology, including drug absorption, distribution, metabolism, and excretion. The autonomic nervous system will be covered and an introduction to drug dosage forms and drug dosage regimens.
- * 220 **PRINCIPLES OF MEDICINE II: CLINICAL PATHOLOGY AND PHARMACOLOGY** (4 quarter hours)
Three hours of lecture and one two-hour laboratory per week. The study of the etiology, pathophysiology, treatment and ocular complications of systemic diseases. An organ system modular approach will be adopted.
- 221 **PHYSIOLOGICAL OPTICS II** (4 quarter hours)
Three hours of lecture and one two-hour laboratory per week. A study of monocular sensory aspects of vision and the physiology of ocular motility.
- 224 **OPHTHALMIC PATHOLOGY I** (6 quarter hours)
Five hours of lecture and one two-hour laboratory per week. A thorough consideration of diseases of the eye, its adnexa, and the visual pathway and of pathologically induced changes in the visual fields. Techniques of instrumentation for detection, measurement, and diagnosis of eye disorders are studied intensively.
- * 230 **PRINCIPLES OF MEDICINE III: CLINICAL PATHOLOGY AND PHARMACOLOGY** (4 quarter hours)
Three hours of lecture and one two-hour laboratory per week. A continuation of Bio. 220.
- 231 **PHYSIOLOGICAL OPTICS III: MONOCULAR SENSORY AND BINOCULAR VISION** (3 quarter hours)
Two hours of lecture and one two-hour laboratory per week. A continuation of monocular sensory aspects of vision, color vision and binocular vision.
- 234 **OPHTHALMIC PATHOLOGY II** (6 quarter hours)
Five hours of lecture and one two-hour laboratory per week. Continuation of Bio. 224.
- 235 **APPLIED PSYCHOLOGY: PATIENT BEHAVIOR** (1 quarter hour)
One hour of lecture per week. The psychology of patient handling, with respect to refractive error and numerous ocular and visual anomalies. Patient management with respect to age (infancy to the elderly) and counseling, generally. Special attention is given to how the doctor explains and informs the patient of clinical entities, particularly "referral type" cases. Emphasis will be given to the commonest conditions met with in practice, including cataract, glaucoma, retinal separation, multiple sclerosis, strabismus, and refractive error.
- * 310 **PRINCIPLES OF MEDICINE IV: PEDIATRICS AND PEDIATRIC OPTOMETRIC** (3 quarter hours)
Three hours of lecture per week. The course will be concerned with growth and development of the young; childhood diseases; hereditary and genetic disorders of the eye and adnexa in pediatric ophthalmic medicine; emotional components in pediatrics; disease processes and therapeutic management of the eye and adnexa. The ophthalmic examination of infants and children; ophthalmic optics and dispensing for refractive errors and the correction of refractive errors, the correction of low vision problems in children.
- 312 **NEUROANATOMY & NEUROPHYSIOLOGY II** (4 quarter hours)
Three hours of lecture and one two-hour laboratory per week. A laboratory course dealing with the electrical properties of the body and the means of measuring and interpreting electrical activity of the nervous system and the muscular system: EEG, EMG, ERG, EOG.
- * 313 **ADVANCED PRINCIPLES OF PHARMACOLOGY & THERAPEUTICS** (2 quarter hours)
Two hours of lecture per week. The course covers principles of pharmacology and therapeutics.

- macology, including drug absorption, distribution, metabolism, and excretion. The autonomic nervous system will be covered and an introduction to drug dosage forms and drug dosage regimens.
- * 320 PRINCIPLES OF MEDICINE V: GERONTOLOGY & GERIATRICS (3 quarter hours)
Three hours of lecture per week. The processes of aging; diseases of the elderly. Disease processes and therapeutics of the aging eye and adnexa. Ophthalmic optics and correction of refractive errors in the geriatric patients, aphakia, correction of low vision problems in the elderly.
- 321 PRINCIPLES OF MEDICINE VI: NEUROLOGY (2 quarter hours)
Two hours of lecture per week. Introduction to neurology, including the peripheral nervous system, diseases of the spinal cord and brain; clinical examination of the nervous system; special senses; neurological symptoms; diseases of the cranial nerves; common psychiatric disorders, neurosis, psychosis, alcoholism, anxiety, etc.
- * 323 PHARMACOLOGY: OCULAR & SYSTEMIC PHARMACOLOGY (4 quarter hours)
Three hours of lecture and one two-hour laboratory per week. A course covering basic concepts of current ocular pathological problems. Included are consideration of local and systemic treatment of ocular pathologies, use of diagnostic agents, and ocular side effects of non-ocular drugs.
- 330 PRINCIPLES OF MEDICINE VII: DERMATOLOGY (2 quarter hours)
Two hours of lecture per week. Appreciation of skin disorders with emphasis on ocular or adnexa implications. Topics will include collagen diseases, pre-cataract skin changes, psoriasis, facial tumors, tumors of eyelid, eyelashes, eyebrows, eczemas; Seborrheic, atropic and allergic dermatitis; Steven-Johnson and dry eye syndrome; Xeroderma, Lipoid Storage Diseases, Xanthlasma; Seborrheic exfoliation. Viral diseases of skin with ocular manifestation, including Vaccinia, Herpes Simplex, Herpes Zoster, Chickenpox, measles, Verrucae; Bullous Dermatoses, disturbances of pigmentation, nutritional disturbances and drug reactions.
- * 333 PHARMACOLOGY: CLINICAL PHARMACOLOGY (4 quarter hours)
Three hours of lecture and one two-hour laboratory per week. An advanced course designed to integrate the student's knowledge of pathology and pharmacology. Special emphasis will be placed on further developing differential diagnostic skills, the skills necessary to manage and/or monitor patients who manifest diagnosed ocular conditions and/or systemic conditions with ocular and visual complications, and in addition, to develop further screening techniques for detecting high incidence general health problems.
- 432 VISION SCIENCE SEMINAR: CURRENT PROBLEMS (2 quarter hours)
Two hours of lecture per week. Various topics concerning aspects of vision science are discussed in terms of current problems.

OPTOMETRY DEPARTMENT

- 110 BASIC OPTOMETRY (4 quarter hours)
Three hours of lecture and one two-hour laboratory per week. Introduction to the use of the trial frame, trial case, retinoscope, ophthalmoscope, ophthalmometer and other instruments used in the visual analysis. Normal refractive states and deviations are studied along with common visual anomalies. Techniques of taking the principal optometric data and the case history are introduced, followed by the evaluation of single findings and the inference of deviant processes from patterns of findings.
- 111 PREVENTATIVE AND COMMUNITY OPTOMETRY: EPIDEMIOLOGY AND RESEARCH METHODOLOGY (4 quarter hours)
Four hours of lecture per week. Statistical methods as applied to data obtained in optometric examinations and visual science. Measures of central tendency, variability, correlation, standard errors, and tests of significance of commonly used statistics including introduction to the analysis of variance. Experimental design and logic of controlled experimentation, reliability of observations, statistical versus experimental means of controlled experimentation, analysis, interpretation and communication of experimental results.
- 120 INTERMEDIATE OPTOMETRY I (4 quarter hours)
Three hours of lecture and one two-hour laboratory per week. A continuation of 110.
- 121 PREVENTATIVE AND COMMUNITY OPTOMETRY: JURISPRUDENCE (2 quarter hours)
Two hours of lecture per week. Prevailing statutory and common laws relevant to rights and responsibilities of the optometrist are presented and the legal principles with which an optometrist should be familiar are discussed.
- 130 INTERMEDIATE OPTOMETRY II (5 quarter hours)
Four hours of lecture and one two-hour laboratory per week. A continuation of 120.
- 131 HISTORY OF OPTOMETRY (1 quarter hour)
One hour of lecture per week. The development of the profession of optometry from antiquity to the present is surveyed. The role of certain optometric organizations, as well as noted figures in the history of vision science and optometry are studied for perspective.
- 210 ADVANCED OPTOMETRY I (4 quarter hours)
Three hours of lecture and one two-hour laboratory. The procedures and rationales of graphical, normative and functional visual analysis are studied and compared. Selected optometrics are compared in relation to the diagnosis and treatment of various visual problems.
- 220 ADVANCED OPTOMETRY II (4 quarter hours)
Three hours of lecture and one two-hour laboratory. A continuation of 210.
- 222 OPHTHALMIC OPTICS I (2 quarter hours)
Two hours of lecture per week. Fundamentals of ophthalmic mechanics, pertinent mathematics, practical training in the fabrication of common types of ophthalmic lenses and spectacles. Dispensing procedures of fit-

- ling and adjusting of spectacles to various facial contours are included. Tool kits are required.
- 320 **ADVANCED OPTOMETRY III** (5 quarter hours)
Four hours of lecture and one two-hour laboratory. A continuation of 220.
- 322 **OPHTHALMIC OPTICS II** (2 quarter hours)
One hour of lecture and one two-hour laboratory per week. A continuation of Opt. 222. Tool kits are required.
- 310 **CONTACT LENS PRACTICE I** (4 quarter hours)
Three hours of lecture and one two-hour laboratory per week. The history and development of contact lenses, lectures on the anatomy and physiology of the cornea and eyelids, optics, instrumentation, and lens design. Symptomatology with emphasis on differential diagnosis is presented. Fluorescein analysis of diagnostic lens/cornea relationships is emphasized. Material concerning lens modification procedures, verification of lenses, and fitting techniques is presented in the laboratory.
- 311 **ORTHOPTICS & VISION TRAINING I** (4 quarter hours)
Three hours of lecture and one two-hour laboratory per week. A study of the influence of vision on human potential, performance, and behavior at various levels of development.
- 320 **CONTACT LENS PRACTICE II** (4 quarter hours)
Three hours of lecture and one two-hour laboratory per week. Advanced optics, bifocal lenses, scleral lenses, and contact lens telescopic systems are presented. Prerequisite: Optometry 310.
- 321 **ORTHOPTICS & VISION TRAINING II** (4 quarter hours)
Three hours of lecture and one two-hour laboratory per week. Fundamental principles and modern concepts of vision training and orthoptic procedures are presented as they apply to improvement of vision function, reestablishment of efficient binocular vision, and modification of behavior through performance and achievement gains in the individual.
- 331 **PREVENTATIVE & COMMUNITY OPTOMETRY: ENVIRONMENTAL VISION** (3 quarter hours)
Three hours of lecture per week. An analysis of the role of the optometrist and the practice of optometry in industry and other public, military, and educational settings where large groups of individuals are sharing a common environment.
- 332 **VISION SCIENCE LABORATORY** (2 quarter hours)
A group of courses from which the student elects one. Each course includes two hours of lecture or one hour of lecture and one two-hour laboratory per week and is research oriented, with classroom activity devoted to clarifying and discussing laboratory techniques. Offered to appeal to student interests in pursuing special research topics in greater depth in areas such as Physical Optics, Geometrical Optics, Physiological Optics, Psychological Optics, and Experimental Optometry.
- 333 **LIMITED VISION (PARTIAL SIGHT)** (4 quarter hours)
Three hours of lecture and one two-hour laboratory per week. Differential procedures of evaluation of patients with severe and intractable visual deficits. Anatomical, physiological, and psychological aspects are integrated in considering the most suitable optic compensation.

- 401 **PREVENTATIVE & COMMUNITY OPTOMETRY: ECONOMICS & PRACTICE MANAGEMENT** (4 quarter hours)
Four hours of lecture per week. Professional and economic aspects of the ethical practice of optometry are studied in detail. Special attention is given to selection of a practice location, planning and equipping the office, fee structures, office and personnel management, records systems, and effective communications at the professional level. The basic concepts of ethical professional conduct and their application to standards of practice are considered from the points of view of the individual optometrist, the patient, the profession, and the public.
- 402 **PREVENTATIVE & COMMUNITY OPTOMETRY: PUBLIC HEALTH** (2 quarter hours)
Two hours of lecture per week. A general introduction to the principles of public health, the concepts of epidemiology, and the structure and functioning of local, state, and federal health departments and agencies.
- 410 **OPTOMETRY SEMINAR: CURRENT PROBLEMS** (3 quarter hours)
Three hours of lecture per week. Modern techniques used in various aspects of optometry, including contact lenses, general refraction, pathology, etc.
- 411 **CLINICAL CASE ANALYSIS I** (2 quarter hours)
Two hours of lecture per week. Analysis of patient cases, including general, and various specialty areas.
- 420 **OPTOMETRY SEMINAR** (2 quarter hours)
Two hours of lecture per week. A continuation of 410.
- 421 **CLINICAL CASE ANALYSIS II** (2 quarter hours)
Two hours of lecture per week. A continuation of 411.
- 430 **OPTOMETRY SEMINAR: CURRENT PROBLEMS** (3 quarter hours)
Three hours of lecture per week. A continuation of 420.
- 431 **CLINICAL CASE ANALYSIS III** (2 quarter hours)
Two hours of lecture per week. A continuation of 421.

CLINIC DEPARTMENT. Satisfactory completion of all course work in the Optometry Department (excluding History of Optometry) and Clinic Department in the First and Second Professional Years is prerequisite to the Third Professional Year Clinic Department work. Additionally, the three-quarter, Second Professional Year general and ocular pathology series; the Second Professional Year course in Pharmacology and Therapeutics; and the Second Professional Year course in Applied Psychology, all in the Biomedical Department, are prerequisites for Third Professional Year clinic assignments.

- 110 **CLINIC ORIENTATION** (1 quarter hour)
One two-hour laboratory per week. An orientation to the clinic by means of participation in school screenings and external clinics, to the extent of recording and assisting upper classmen in performance of clinical routines. This one-hour course is extended over the first three quarters of the optometry program and is designed to afford the beginner an appreciation of the social aspects of vision care.

210 CLINICAL PROCEDURES (1 quarter hour)

One two hour clinic laboratory per week. This course is an introduction to clinical procedures, emphasizing patient handling, case histories, record keeping, preliminary testing, and instrumentation. This one-hour course is extended over the Fall, Winter and Spring quarters of the Second Professional Year.

* **310 CLINICAL PRACTICE I (3 quarter hours)**

One hour of lecture and two four-hour laboratories per week. Extensive familiarization with clinical facilities and procedures and individually supervised experience in the coordination and application of various theories and techniques of optometry in the out-patient clinic. The taking of case histories; measurement of visual skills, refractive status, status of accommodation and convergence and their coordination, pathology and visual fields examination, subnormal vision, eikonometry, prescribing and dispensing.

320 CLINICAL PRACTICE II (4 quarter hours)

One hour of lecture and three four-hour laboratories per week. A continuation of 310.

330 CLINICAL PRACTICE III (4 quarter hours)

One hour of lecture and three four-hour laboratories per week. A continuation of 320.

331 SPECIALTY CLINICS (2 quarter hours)

Two four-hour laboratories per week. Introduction to clinical procedures in Contact Lenses and in Orthoptics and Vision Training.

400 CLINICAL PRACTICE IV (5 quarter hours)

One hour of lecture and four four-hour laboratories per week. A continuation of 330.

401 SPECIALTY CLINIC (2 quarter hours)

A topic selected from a wide variety of subjects. A minimum of two quarter hours of credit each must be completed in Contact Lenses and in Orthoptics and Vision Training, during the fourth year, as well as a minimum of one quarter hour of credit in Pathology. Additional clinic rotations may be selected from Geriatrics, Low Vision, Dermatology, Neurology, Pediatrics, Neurophysiology, or any other approved clinical area.

410 GENERAL CLINIC PRACTICE V (5 quarter hours)

One hour of lecture and four four-hour laboratories per week. A continuation of 400.

411 SPECIALTY CLINICS (2 quarter hours)

Two four-hour laboratories per week. A continuation of 401.

420 GENERAL CLINIC PRACTICE VI (6 quarter hours)

One hour of lecture and five four-hour laboratories per week. A continuation of 410.

421 SPECIALTY CLINICS (3 quarter hours)

Three four-hour laboratories per week. A continuation of 411.

430 GENERAL CLINIC PRACTICE VII (5 quarter hours)

One hour of lecture and four four-hour laboratories per week. A continuation of 420.

* **431 SPECIALTY CLINICS (2 quarter hours)**

Two four-hour laboratories per week. A continuation of 421.

FOURTH-YEAR EXTERNSHIPS. The externship program is designed for fourth-year clinicians in optometry to broaden and supplement their experience in evaluating, diagnosing, and treating conditions of the eye and visual system. Externships are five weeks in duration, and they may be scheduled during any of the four quarters of the fourth professional year. Fourth-year students are required to take at least one externship prior to graduation. A student who is unable to participate in an assigned externship for exceptional reasons must consult with the Dean of Faculty.

It is permissible for a fourth-year student to participate in more than one externship, or in an externship of longer than five weeks in duration. No more than one quarter may be spent in any one location.

The externship program provides a wide range of geographical locations in hospital, private clinic, and private practice settings. In all cases the extern serves under the direct supervision of optometric, osteopathic, or medical physicians who hold at least temporary appointments to the adjunct faculty of the College.

Eligibility requirements for externship participation are as follows:

1. The student must be in good standing (i.e., not subject to termination for disciplinary reasons); and
2. Not on probation (either academic or disciplinary); and
3. Be a regular student (i.e., pursuing a course of study leading to certification or to a degree offered by the College); and
4. Must have satisfactorily completed all courses in the O.D. degree curriculum through the spring quarter of the third year; and
5. Must have passed clinical competency evaluation.

EXTERNAL STUDIES PROGRAM COURSES**133E VEGETATIVE PHYSIOLOGY: OCULAR BIOCHEMISTRY (3 quarter hours)**

Three hours of lecture per week. Analysis of the intraocular fluids, aqueous chemistry and flow; secretory mechanism, intraocular pressure; vitreous structure and protein; lens and its function related to its composition. Lens proteins, metabolism cataract. The cornea and sclera; neurological aspects of sensation; metabolism, nutrition and growth processes; retinal metabolism, glycolysis.

316E GENERAL PHARMACOLOGY (3 quarter hours)

Three hours of lecture per week. A comprehensive course covering contemporary therapeutic principles and agents. Included are origins, chemical nature, mechanism of actions and interactions, major effects, and absorption and fate of the most commonly used drugs.

326E OCULAR PHARMACOLOGY (3 quarter hours)

Three hours of lecture per week. A course covering basic concepts of current ocular pathological problems. Included are consideration of local and systemic treatment of ocular pathologies, use of diagnostic agents, and ocular side effects of non-ocular drugs.

336E CLINICAL PHARMACOLOGY (3 quarter hours)

Two hours lecture and one two-hour laboratory per week. An advanced course designed to integrate the student's knowledge of pathology and



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Medical School

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Medical Student Government and Student Societies

The Medical Student Council, the student governing body, is composed of representatives from each class and from several minority groups that are elected each year. Council members meet regularly and frequently to discuss problems common to the student body and to plan a variety of projects and service activities. The council represents the interests of the medical students to the administration and the faculty. The medical students, through the council, have adopted an honor code covering examination procedures. Upon admission to the Medical School, each student, after suitable briefing, signs a statement indicating that he or she is well acquainted with the provisions of this code and agrees to abide by it. The Ethics Committee of the Medical Student Council is responsible for investigating reports of any suspected violations of this code.

There are several medical fraternities available for men and one medical fraternity available for women. These organizations play a major role in the social life of many medical students.

The national medical scholastic society, Alpha Omega Alpha, selects academically high-ranking students from the junior and senior classes for election to membership. The James Moore Society is composed of 25 students, elected by the membership on the basis of research interest and achievement. The group meets monthly at the home of one of several faculty members for discussions of medical subjects and other topics of current interest. The Cyrus P. Barnum, Jr., Society, an organization of students working toward the combined M.D.-Ph.D. degree, meets regularly for scientific and informal evening discussions to which speakers are invited.

The American Medical Student Association (AMSA), an integral part of the Medical Student Council, is incorporated as one of the major activities of the council. The association's chairperson acts as local AMSA chapter president. This group sponsors certain school-wide functions through the student council. The membership fee is nominal, and members receive monthly copies of the national periodical.

The wives of many medical students are active in the Women's Auxiliary of the Student American Medical Association (WA-SAMA). This group holds monthly meetings featuring speakers who discuss topics of interest.

IV. M.D. PROGRAM

The Medical School provides the faculty and facilities for instruction of students in the course in medicine. The primary goal of medical education is to produce good physicians possessing sound training in quantitative human biology. Beyond the Medical School and the award of the M.D. degree, all graduates are obliged, by requirements for specialization and/or licensure, to undertake additional formal education or training. And beyond these formal programs are the continuing education activities that individuals in practice must demand of themselves. Much of the success of the sequence of undergraduate-graduate-continuing education, called the continuum of medical education, is dependent on individual responsibility and initiative. Therefore, to encourage such development in medical students, the concept of the student as learner is emphasized in the curriculum.

The course of study for the M.D. degree consists of a core program of 8 academic quarters and a track (option, elective) program of 5 academic quarters. Within the core program, the first 4 quarters, termed Phase A, include course work in basic medical sciences, behavioral science, and introductory experiences with patients. The next 4 academic quarters of the core program, termed Phase B, consist of integrated interdepartmental courses organized and taught along organ, system, and topical lines. In the Phase D portion of the curriculum, students, with the help of an adviser, plan a program of elective courses. All students must include in this program experience in both medicine and surgery that will be suitable preparation for advanced clinical responsibilities in subsequent training after completion of work for the M.D. degree. Students making satisfactory progress may, after adviser, track, and special committee review, be approved to complete Phase D in less than 5 academic quarters (minimum 3 quarters of study) providing they make arrangement for a first year of graduate study in a teaching hospital. Alternatively, students may complete Medical School in 5 quarters in Phase D with no restriction or requirement as to type of graduate program activity. Students are required to take and pass parts I and II of the National Board Examinations as a requirement for graduation and the M.D. degree.

Phase A

In the first 4 quarters of the Medical School program, studies cover the structure and function of the human organism and the emotional, social, and psychological development of the individual. In Phase A, the student begins clinical activities through tutorial assignments and clinical correlation sessions in Introduction to Clinical Medicine. The Phase A program is intended to involve the student physician in individual synthesis and correlation of the basic sciences with clinical applications and in direct, personal confrontation with human illness and patient care. The required program in Phase A consists of the following courses:

Fall Quarter and Winter Quarter (A-1 and A-2)

- Gross Anatomy (Anat 5100-5101)
- Human Histology (Anat 5103-5104)
- Embryology (Anat 5106-5107)
- Medical Biochemistry (MdBc 5100-5101)
- Introduction to Clinical Medicine (InMd 5160-5101)
- Behavioral Science (AdPy 5107-5108)

Spring Quarter and Summer Quarter (A-3 and A-4)

- Medical Physiology (Phys 5110-5111)
- Pathology (Path 5101)
- Neuroanatomy (Anat 5111)

Introduction to Clinical Medicine (InMd 5102-5103)
 Microbiology (MicB 5205-5206)
 Pharmacology (Phci 5110-5111) 2 cr. see p 34

In both fall and winter quarters, students may elect to attend one of several weekly small group meetings at which topics of personal concern, current interest, or medical importance are brought up for discussion.

Phase B

The 4-quarter sequence of Phase B begins in the fall and consists of integrated, interdepartmental courses designed to highlight fundamental principles in clinical medicine and to emphasize pathophysiologic concepts. The courses are organized in relation to organs, systems, or topics. Two courses in the Phase B sequence, Student as Physician and Human Behavior, are designed, respectively, to increase the student's clinical skills and knowledge and to enhance the student's awareness of psychopathology and psychological factors related to illness.

Core activities in some courses consist of small group discussions, with lectures and other formal presentations optional. Extensive syllabi and reference lists are provided for each student. The student is encouraged to exercise independent and mature judgment in the learning process by arranging her or his own activities. The student may utilize this time for study in the Learning Center, participation in additional clinical experiences, or completion of elective courses available to students in Phase B. The formal Medical School activities in Phase B are divided into three categories:

1. Core Time—Lectures or small group discussions related to a specific organ, system, or topic, and weekly clinical tutorials. Attendance is expected.
2. Optional Activities—Supplementary scheduled activities, such as lectures that expand material offered in the core or, in some cases where lectures are optional, films, additional clinical experiences, laboratories, demonstrations, clinical rounds, teaching rounds, or clinical pathological conferences. Attendance is voluntary.
3. Electives—Courses offered throughout the year covering various topics of interest to medical students but not necessarily related to the core program.

The required program in Phase B consists of the following courses:

REQUIRED PHASE B COURSES

InMd 5110—Medical Genetics	2 cr
InMd 5220—Cardiovascular	3 cr
InMd 5221—Respiratory	3 cr
InMd 5228—Ear, Nose, and Throat	2 cr
InMd 5212—Human Behavior	5 cr
InMd 5231—Gut	4 cr
InMd 5234—Biometry and Epidemiology	1 cr
InMd 5226—Food	3 cr
InMd 5222—Fluid and Electrolytes	3 cr
InMd 5223—Kidney and Urinary Tract	3 cr
InMd 5230—Nervous System and Muscle Disorders	5 cr
InMd 5232—Bones, Joints, and Connective Tissue	4 cr
InMd 5224—Endocrine and Metabolism	4 cr
InMd 5225—Reproduction	4 cr
InMd 5227—Skin	2 cr

→ InMd 5229 Eye
 InMd 5233 Human Sexuality

2 cr
 3 cr

Student as Physician Tutorials

Medicine Tutorial	Cr ar
Pediatrics Tutorial	Cr ar
Obstetrics-Gynecology Tutorial	Cr ar
Psychiatry Tutorial	Cr ar
Surgery Tutorial	Cr ar
Family Practice and Community Health	Cr ar
Physical Medicine and Rehabilitation	Cr ar
Laboratory Medicine	Cr ar

Phase D

Phase D is designed to extend the curriculum goals of relevance, flexibility, and the student as learner. Prior to completion of Phase B, students select a track and an adviser within that track for the balance of the Medical School program. Students are reminded not to confuse the selection of a track at this point with their eventual need to choose a practice specialty. The six broadly defined career pathways or tracks, encompassing all disciplines and providing varied options for all students, are the following:

- Track 1—Medicine, Pediatrics, Medical Specialties including Obstetrics
- Track 2—Surgical Specialties
- Track 3—Psychiatry and Behavioral Sciences
- Track 4—Neurological Sciences
- Track 5—Family Practice
- Track 6—Medical Investigation and Special Programs

The student, with the help of an adviser, develops an individualized elective program of study related to personal interests and career goals. Each student's program is approved and progress monitored by the appropriate track committee.

There are electives strongly recommended for the several tracks. In general, and as a logical extension of the core material and tutorial format in Phase B, each student is advised to spend 12 to 18 weeks in externship-type electives such as those offered in medicine, neurology, obstetrics, pediatrics, psychiatry, and surgery. The balance of the individual program is drawn from the extensive elective courses offered by each Medical School department. Students may consider elective work in other medical schools, in the United States or elsewhere. Up to 1 quarter of credit for such activities may be approved by the adviser and track committee. The flexibility of the elective program and the general nature of the pathways provide an opportunity for creative and interested students to avail themselves of the widest possible spectrum of educational activities to further their professional growth.

Students are eligible to begin Phase D on completion of Phases A and B and after taking part I of the national boards. Students with deficiencies in Phase A or B or who have taken but not passed part I are reviewed by the Scholastic Standing Committee for a decision as to arrangement of their continuing academic program. The content of Phase D, approved by the adviser and Phase D track committee is determined by a review of each student's educational needs in light of his or her projected career goals. There are no restrictions on the type of internship or first-year training program for students graduating in 4 years. In the standard 13-quarter curriculum, in the case of 3-quarter programs, students must provide evidence that they will spend their first postdoctoral year (internship or first year of graduate training) in a university or other major affiliated teaching hospital.

Lydia Neherg, M.D.
 Thomas O'Hara, M.D.
 Richard T. Olson, M.D.
 Charles Ostro, M.D.
 René Peltier, M.D.
 Charles Poych, M.D.
 Robert Spelman, M.D.
 James Standler, M.D.
 Alfred Steldi, M.D.
 Richard Student, M.D.
 Byron Teske, M.D.
 James Thompson, M.D.
 Jon Tierney, M.D.
 Elliot Troup, M.D.
 Paul Wicklund, M.D.

Dwayne Bron
 Christopher Brown, M.D.
 Emmett Carpel, M.D.
 Richard Carroll, M.D.
 David Chisak, M.D.
 Raymond Croissant, M.D.
 Michle Haddad, M.D.
 David Hendrickson, M.D.
 Donald Harlick, M.D.
 George O. Hilgerman, M.D.
 Herbert T. Hohday, M.D.
 Douglas Holmen, M.D.
 James Householder, M.D.
 Martin Kaplan, M.D.
 Aaron Nathanson, M.D.
 Mark Norman, M.D.
 Robert Ostrow, M.D.
 Jerome Poland, M.D.
 Thomas Purcell, M.D.
 Wesley Sondreal, M.D.
 Robert Warshawsky, M.D.

Clinical Instructor
 Peter Army, M.D.
 Judith Bennington, M.D.
 John E. Bergstadt, M.D.
 Herbert Billman, M.D.

ELECTIVE COURSES

- 8180. EXTERNSHIP IN OPHTHALMOLOGY. (Cr ar; prereq regis med)
- 8180. OPHTHALMOLOGY RES PROBLEMS. (Cr ar; prereq regis med)

ADVANCED CREDIT COURSES

- 8101. CLINICAL OPHTHALMOLOGY
- 8102. EXTERNAL DISEASES
- 8103. MEDICAL OPHTHALMOLOGY
- 8104. RADIOLOGY OF THE EYE, ORBIT, AND HEAD
- 8105. MOTILITY
- 8106. STRABISMUS MANAGEMENT
- 8107. OCULAR ANATOMY
- 8121. REFRACTION
- 8122. PHYSIOLOGIC OPTICS
- 8131. PRACTICAL OCULAR SURGERY
- 8132. DIDACTIC OCULAR SURGERY
- 8141. OCULAR PATHOLOGY CONFERENCE
- 8142. OPHTHALMIC PATHOLOGY LABORATORY
- 8153. PATHOLOGY OF THE EYE
- 8151. BASIC AND APPLIED OPHTHALMOLOGY
- 8152. OPHTHALMOLOGY LABORATORY
- 8153. RESEARCH IN OPHTHALMOLOGY
- 8154. SEMINAR IN OPHTHALMOLOGY
- 8155. SPECIAL TOPICS IN OPHTHALMOLOGY
- 8701. NEUROOPHTHALMOLOGY

Medical student may take any or none of these courses

Orthopaedic Surgery (OrSu)
 Roby C. Thompson, Jr., M.D., professor and head

Professor
 David S. Bradford, M.D.
 Robert B. Winter, M.D.

Clinical Professor
 Ramon B. Gustilo, M.D.
 Harry B. Hall, M.D.
 Sheldon M. Logeard, M.D.

Associate Professor

Thomas H. Comfort, M.D.
 James H. House, M.D., M.S.
 Robert F. Premier, M.D.

Clinical Associate Professor

Robert M. Barnett, M.D.
 Lester W. Carlinder, M.D.
 Frederick D. Orr, M.D.
 Arnold L. Hamal, M.D.
 Walter Indock, M.D.
 Richard H. Jones, M.D.
 Lowell Klaven, M.D.
 Lowell Luller, M.D.
 Harvey E. O'Phelan, M.D.
 Wayne W. Thompson, M.D.

Assistant Professor

Allred F. Behrens, M.D.
 John E. Lonstein, M.D.
 Jack K. Mayfield, M.D.
 Theodora R. Osgema, Jr., Ph.D.

Clinical Assistant Professor

Richard J. Aadalen, M.D.
 Gordon Asmuth, M.D.
 Paul Arneson, M.D.
 Frank S. P. Abb, M.D., M.S.
 Vincent E. Eilers, M.D.
 David W. Florence, M.D.
 Daniel Galthorn, M.D.
 John A. Hartwig, M.D.
 Edward H. Kelly, M.D.
 Charles C. Lal, M.D.
 Donald R. Lennik, M.D., M.S.

Limit Lectur

Edward McElfresh, M.D.
 John E. McManan, M.D.
 Joseph M. Tamborino, M.D.

Instructor

Harold B. Ames, M.D.
 Jon H. Scarnino, M.D.

Clinical Instructor

John J. Dear, M.D.
 Roland Braddock, M.D.
 Joseph Dochlage, M.D.
 Charles J. Costley, M.D.
 Michael W. Davis, M.D.
 Leo DeSouza, M.D.
 Richard B. Edwards, M.D.
 Philip Hasey, M.D.
 James E. Johanson, M.D.
 Richard J. Johnson, M.D.
 Stephen Kuschen, M.D.
 John Larkin, M.D.
 Dick R. Lavender, M.D.
 Thomas L. Linn, M.D.
 Donald Masten, M.D.
 James J. Pratt, M.D.
 Jerry Reese, M.D.
 George E. Rescott, M.D.
 Richard Schmidt, M.D.
 Ivan Scholl, M.D.
 Peter Strand, M.D.
 Marjorie S. Stirling, M.D.
 Francis J. Tost, M.D.
 John Wilson, M.D.

The major goals of the orthopaedic surgery courses are to provide the medical student with the foundation necessary for performing a basic neuro-musculoskeletal examination of the patient, for correlating the clinical expressions of disease with basic science knowledge, and for recognizing those patient problems that require immediate appraisal and resolution. In a number of clinical electives the student experience has the option of participating in the diagnostic and therapeutic management of patients with orthopaedic and traumatic disabilities. This advanced experience provides an understanding of fundamental orthopaedic principles, the science of orthopaedic surgery, and the opportunities for both clinical and basic investigation in orthopaedic surgery.

ELECTIVE COURSES

- 8180. ORTHOPEDICS I. (Cr ar; prereq regis med)
- 8185. ORTHOPEDICS II—EXTERNSHIP IN ORTHOPEDIC SURGERY. (Cr ar; prereq regis med)
- 8186. RESEARCH PROBLEMS IN ORTHOPEDIC SURGERY. (Cr ar; prereq regis med)
- 8187. EXTERNSHIP IN ORTHOPEDIC SURGERY AND FRACTURES—St Paul-Ramsey Hospital. (Cr ar; prereq regis med)
- 8188. EXTERNSHIP IN ORTHOPEDIC SURGERY AND FRACTURES—Gillette State Hospital, St Paul. (Cr ar; prereq regis med)
- 8189. EXTERNSHIP IN ORTHOPEDIC SURGERY AND FRACTURES—Fairview-St. Mary's Hospital. (Cr ar; prereq regis med)
- 8190. EXTERNSHIP IN ORTHOPEDIC SURGERY AND FRACTURES—Veterans Hospital. (Cr ar; prereq regis med)
- 8191. ORTHOPEDIC EXTERNSHIP AT HENNEPIN COUNTY GENERAL HOSPITAL. (Cr ar; prereq regis med)

FACULTY

Jimmy Bartlett, O.D.

Associate Professor, Director of Continuing Education
University of Alabama in Birmingham School of Optometry/
The Medical Center

Theodore Buckner, M.D.

Board Certified Ophthalmologist, Wills Eye Hospital,
Philadelphia, Attending Surgeon, Shore Memorial Hospital,
Somers Point, New Jersey

Linda C. Casser, O.D.

Assistant Professor, Pennsylvania College of Optometry, Chief,
Primary Care Module No. 4, The Eye Institute, Pennsylvania
College of Optometry, Philadelphia

Louis J. Catania, O.D.

Director, Center for Continuing and Post-Graduate Education
Pennsylvania College of Optometry, Philadelphia; Past
Director, Primary Care Optometry Residency Program of the
Joseph C. Wilson Health Care Center Medical Group, Rochester,
New York

Phillip Gerbino, Pharm.D.

Associate Professor of Clinical Pharmacy, Philadelphia College
of Pharmacy and Science; Former Director of Drug
Information Center of Cornell University

Thomas L. Lewis, O.D., Ph.D.

Doctorate in Anatomy, Jefferson Medical College; Dean of
Academic Affairs and Associate Professor, Pennsylvania
College of Optometry

Mack Lipkin, Jr., M.D., F.A.C.P.

Graduate of Harvard Medical School; Board Certified in
Internal Medicine; Assistant Professor of Medicine, University
of Rochester School of Medicine, Rochester, New York

Roland W. Manthei, Ph.D.

Doctorate in Pharmacology, University of Chicago; Professor
of Pharmacology, Jefferson Medical College, Philadelphia

Ronald R. Reed, M.D.

Board Certified from Wills Eye Hospital; Adjunct Assistant
Clinical Professor, University of Rochester, School of Medicine
Strang Memorial Hospital, Department of Ophthalmology

Diana Yolton, Ph.D.

Assistant Professor of Anatomy and Pathology, Pacific
University College of Optometry.

Clinical Faculty will include experienced clinicians including
optometrists and ophthalmologists from various universities and
U.S. medical centers in the United States.

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PENNSYLVANIA COLLEGE OF OPTOMETRY, and
UNIVERSITY OF ALASKA ANCHORAGE

Pathophysiology & Pharmacology

D. Yolton, Ph.D. - J. Bartlett, O.D. - R. Manthei, Ph.D.
March 27-29-29 April 24-25-26 UAA

Applied Pharmacology & Systemic Disease

P. Gerbino, Pharm.D. - M. Lipkin, M.D.
May 1-2 UAA

CPR & Emergency Care

American Red Cross Instructors
May 3 UAA

Anterior Segment Disease: cornea, uvea, lids conjunctiva, lacrimal system

L. Catania, O.D. - L. Casser, O.D.
May 22-23-24 UAA

Glaucoma

T. Lewis, O.D., Ph.D. - R. Reed, M.D. - clinical staff
June 11-12-13 UAA and selected clinical facilities

Anterior Segment: Clinical Procedures

T. Buckner, M.D. - L. Catania, O.D. - clinical staff
September 10-11-12 Selected Clinical Facilities

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October 16 University of Alaska Campuses

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DIAGNOSIS, MANAGEMENT, AND TREATMENT OF OCULAR DISEASE

...an in-depth postgraduate course including 120 hours of instruction with emphasis on diagnosis,
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 March 27-28-29 UAA
 April 24-25-26 UAA

offered by Pennsylvania College
 Phillip Gerbino, Pharm.D.
 Mack Lipken, Jr., M.D.
 May 1-2 UAA

offered by Pennsylvania College
 Louis Catania, O.D.
 Linda Casser, O.D.
 May 22-23-24 UAA

offered by Pacific University
 Tom Lewis, O.D., Ph.D.
 Ronald Reed, M.D.
 ...and clinical staff
 June 11-12-13 UAA and clinics

offered by Pennsylvania College
 Theodore Buckner, M.D.
 ...and clinical staff
 September 10-11-12 clinics

PATHOPHYSIOLOGY AND PHARMACOLOGY: principles of pharmacology, clinical application of ocular pharmacology and ocular toxicology. Pathophysiology of ocular allergy, infection and inflammation. Pharmacologic considerations in ocular steroid therapy, and in glaucoma therapy.

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SYSTEMIC DISEASE: systemic disease related to ocular disease. Allergies-immunology; cardiovascular-cerebrovascular; endocrine; hematological; infectious and inflammatory; metabolic-chromosomal; musculoskeletal; mucocutaneous-dermatological; neurological nutritional-gastrointestinal

ANTERIOR SEGMENT DISEASE: corneal dystrophies, degenerations, infections, inflammations, irritations, injuries. Differential diagnosis, systemic considerations, treatment/management of anterior uveitis. Eyelid/adnexa disorders. Disorders of the lacrimal system, conjunctiva, sclera, and episclera.

GLAUCOMA: anatomy-pathophysiology review. Epidemiology-risk factors. Examination, differential diagnosis, clinical classification. Medical management, surgical considerations. Concepts and controversies in glaucoma care. Methods of examination and clinical procedures.

ANTERIOR SEGMENT DISEASE CLINIC: examination protocols, techniques in dilation and irrigation, gland expressing, epilation, cyst drainage, scrapings, cultures, cytology. Foreign body removal. Management of lacerations and corneal abrasions. Techniques for diagnosing systemic disease; exophthalmometry, ophthalmodynamometry. Clinical procedures

REGISTRATION FORM

Advance registration of \$100 is required and due by February 24, 1982. Please complete the form below and return with payment to: Alaska Optometric Association, 3401 Denali Street, Suite 204, Anchorage, Alaska 99503

Tuition: \$1,550	Payments and Due Dates
	\$100 February 24, 1982
	400 March 17, 1982
	400 April 17, 1982
	400 May 17, 1982
	250 September 1, 1982

NAME _____

ADDRESS _____

City _____ State/Zip _____

I will need the following required textbooks:

- _____ Goodman and Gilman, The Pharmacological Basis of Therapeutics \$45.00
- _____ Fraunfelder & Roy, Current Ocular Therapy \$43.00
- _____ Deborah Pavon-Langston, Manual of Ocular Diagnosis & Therapy \$15.00

notion and has emphasized to trainees that the hospital does not endorse them as being competent to engage in family practice. However, since state laws permit an M.D. licensee to do any type of practice he wishes, it is the feeling of the director that the public would be better served by potential family practitioners having some rather than no additional training. Since there are a number of physicians seeking some training to change their specialty, consideration should be given to longer hospital training periods or a return to specially designed preceptorships to accommodate them.

With respect to those family doctors in retraining, the program would be improved by a more specific set of goals and more careful monitoring of achievements than has as yet been accomplished. The author is aware of two other programs offering similar training. At Creighton University School of Medicine rural family doctors are trained in a specific area, for

example, cardiology techniques such as Swan-Ganz catheter insertion. At the Medical College of Pennsylvania inactive physicians or physicians in administrative positions are being trained in primary care.

Conclusions

A pilot miniresidency in family practice has been in operation at Santa Monica Hospital Medical Center since 1979. Many of the applicants were practicing in other specialties and seeking to make a change to family practice. It is unrealistic to expect that the available two-to six-week period can accomplish this objective, and there is a need for a different kind of program to accommodate such circumstances. Training goals for family doctor residency refresher training must be more specific and evaluations more formal than is now the case in the Santa Monica experience.

Ophthalmology Teaching in Medical Schools

*Robert E. Kalina, M.D., Henry J. L. Van Dyk, M.D.,
and George W. Weinstein, M.D.*

The Association of University Professors of Ophthalmology (AUPO) was founded in 1965 and is made up of the chairmen of all departments or divisions of ophthalmology in U.S. medical schools (1). A major interest of the body, individually and collectively, is medical student education.

Some members of the AUPO believe that recent medical school graduates are less well

prepared in ophthalmology than those of the more distant past. Also reduced familiarity with ophthalmology by physicians in future generations has been cited as a potential problem in the legislative and legal arenas (2).

The results of two AUPO surveys of ophthalmology teaching are reported here.

Survey Techniques

Questionnaires were mailed in 1974 and again in 1979 to the members of the AUPO. Each member was asked to complete the form or to forward it to the individual in his unit most responsible for medical student education. Confidentiality was optional and was elected by some.

The survey document used in 1979 duplicated the questions of 1974 and in addition

inquired about the usage and usefulness of the *Ophthalmology Study Guide for Students and Practitioners of Medicine*, a joint publication of the AUPO and the American Academy of Ophthalmology and Otolaryngology (AAOO) which first appeared in 1976 and now is in its third edition (3). This guide is based upon seven objective areas thought to represent essential knowledge requirements for all physicians. These objectives were developed as a result of a survey of 1,600 respondents representing medicine at undergraduate and graduate levels of general and specialty orientation (4, 5).

Results

Responses were received from 74 of 102 member schools in 1974 (73 percent) and from 81 of 110 schools in 1979 (74 percent) (Figure 1). There was a decline in mean required curriculum hours from 25 in 1974 to 22 in 1979, while the median declined from 18 to 15. Hours actually assigned to the department or division of ophthalmology decreased proportionately from a mean of 22 in 1974 to 20 in 1979. Assigned hours were used most frequently for lectures or demonstrations.

All responding institutions offered medical student electives in ophthalmology in 1979, but only a minority of students chose them (mean 25 percent, median 15 percent). Use of audiovisual self-instruction units rose from 66 percent in 1974 to 82 percent in 1979.

The study guide, not available in 1974, had been adopted as a syllabus by 58 percent of institutions in 1979, while 28 percent used another syllabus, usually prepared locally. In most cases the study guide was purchased by the student and used for self-instruction and as a supplement to lectures. The microfiche illustrations, newly added in the third edition (1978), had been found useful by students in 67 percent of schools using the study guide.

Discussion

The surveys reported here were prompted in part by suspicion among the AUPO members that curriculum time devoted to ophthalmology had suffered during the widespread curriculum revisions which have taken place in U.S. medical schools during recent years.

Although data are not available from the preceding era, the results of the study reported here indicate that currently assigned time for

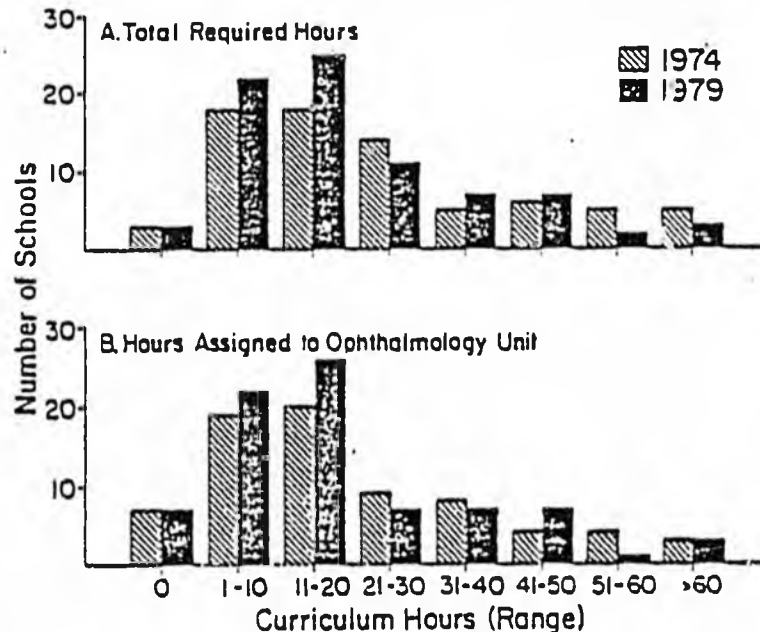


FIGURE 1
Minimum requirements for ophthalmology in U.S. medical schools.

teaching ophthalmology is limited and gradually declining. One logical extension might be a declining ability for appropriate diagnosis, management, or referral of patients with eye disorders, who form a significant segment of those seeking primary care.

The results of these surveys may not include ophthalmology teaching done in the primary care clinical setting. It seems likely that such on-site instruction would be effective and appear relevant to students in that the patient-problem-teacher loop is shortest there; but the authors believe that such teaching events are rare, often unscheduled, and likely to be the first to suffer from time constraints.

Knowledge that curriculum time was limited and that competition for it was keen was one of the prime motivating factors for the development of the AAOO/AUPO study guide. Standardization of objectives to be achieved was presumed then as now to be a laudatory goal. However, the availability of clearly defined objectives has coincided with apparent reduced national curricular emphasis upon ophthalmology.

Not only is the curricular time available to ophthalmology small, but also surprisingly few

students (25 percent) choose ophthalmology electives. The reasons for limited elective participation may range from the influence of counselors to lack of available electives. Whatever the cause, the effect must be negative upon student appreciation for what the specialty offers. In view of the excess of candidates for the limited number of ophthalmology residency positions, a main concern is that students who will practice other specialties, especially primary care, learn proper diagnosis and treatment of some ophthalmic disorders so that they may avoid inappropriate referral to medical or nonmedical practitioners.

References

1. COGAN, D. G. Association of University Professors of Ophthalmology. *Arch. Ophthalmol.*, 74:740, 1965.
2. WINOGRAD, L. A. What's Happening in Medical School? *Ophthalmologist*, March-April, 1978.
3. *Ophthalmology Study Guide* (Third Edition). San Francisco: American Academy of Ophthalmology, 1978.
4. SPIVEY, B. E. A Technique To Determine Curriculum Content for Medical Students. *J. Med. Educ.*, 46:269-274, 1971.
5. SPIVEY, B. E. Ophthalmology for Medical Students: Content and Comment. *Arch. Ophthalmol.*, 84:368-375, 1970.

ALASKA COURSE SCHEDULE #750B2 OCULAR THERAPY FOR THE OPTOMETRIC PRACTITIONER

WEEKEND #	TIMES & DATES	LOCATION	COURSE CURRICULUM	FACULTY	HOURS		COMMENTS
					LECTURE	CLINIC	
1	Fri. 3/5/82 - 9a.-4p. Sat. 3/6/82 - 9a.-4p. Sun. 3/7/82 - 9a.-4p. Mon. 3/8/82 - 9a.-4p.	ANCHORAGE JUNEAU, ALASKA	Principles of Pharmacology Autonomic Drugs Ocular Diagnostic Pharmaceuticals CPR and Emergency Care	Ph.D. Pharmacologist " " " " " " Alaska, American Heart Assn	6 6 6	6	NIA Cert. and/or Re- certification required
2	Fri. 3/26/82-7p.-9p. Sat. 3/27/82-9a.-4p. Sun. 3/28/82-9a.-4p.	ANCHORAGE PORTLAND, OREGON ALASKA	UPA Examination The Pharmacology of Ocular Therapy (Part I) " " " " " (Part II)	PCO Proctor Ph.D. Pharmacologist "	2 6 6		
3	Fri. 4/23/82-9a.-4p. Sat. 4/24/82-9a.-4p. Sun. 4/25/82-9a.-4p.	ANCHORAGE FAIRBANKS, ALASKA	Systemic Diseases (and Ocular Manifestations) Applied Pharmacology Anterior Segment Eye Disease (Part I)	M.D. (Internist) Pharm.D. O.D.	6 6 6		
4	Fri. 5/21/82-8a.-9a. " " " " 9a.-4p. Sat. 5/22/82-8a.-9a. " " " " 9a.-4p. Sun. 5/23/82-9a.-5p.	ANCHORAGE, ALASKA	Midterm Examination (Part I) Anterior Segment Eye Disease (Part II) Midterm Examination (Part II) Anterior Segment Eye Disease (Part III) Anterior Segment Clinic, Day #1	PCO Proctor O.D. PCO Proctor M.D. (Ophthalmologist) M.D. (Ophthal) & O.D.	1 6 1 6	7	10-1 Ratio
5	Fri. 6/25/82-9a.-4p. Sat. 6/26/82-9a.-4p. Sun. 6/27/82-8a.-5p.	ANCHORAGE PORTLAND, OREGON ALASKA	Glaucoma (Part I) " (Parts II & III) " Clinic	O.D., Ph.D. (Anatomist) M.D., (Ophthalmologist) O.D. Staff & M.D. (Ophthl)	6 6	8	8-1 Ratio
6	Fri. 9/10/82-9a.-4p. Sat. 9/11/82-9a.-4p. Sun. 9/12/82-8a.-5p.	ANCHORAGE, ALASKA	Diagnosis & Management of Advanced Eye Disease: Anterior Segment Eye Disease (Part IV) " " " " Clinic, Day #2	M.D. (Ophthalmologist) O.D. O.D. Staff	6 6	8	10-1 Ratio
7	Sun. 10/24/82-9a.-12p	ANCHORAGE, etc. JUNEAU, ALASKA	FINAL EXAMINATION	State Board Proctor	3		
7	20 DAYS	4 SITES	TOTALS	21 { 4 Ph.D.'s 4 M.D.'s 3 O.D.'s	91	29	

**SOUTHERN COLLEGE
OF OPTOMETRY
CATALOG 1982-1983**

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This edition of the Southern College of Optometry catalog is effective for the academic year 1982-83. Inasmuch as changes may be necessary from time to time, this catalog should not be construed as constituting a contract between the College and any person.

SOUTHERN COLLEGE OF OPTOMETRY

Memphis, Tennessee



1982-83 CATALOG

INFORMATION CURRENT AS OF JUNE, 1982

No person shall, on the basis of race, religion, sex, age, handicap, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity at Southern College of Optometry. The College is an Equal Opportunity Employer. College facilities are accessible by wheelchair, and all College services are available to handicapped students.

CURRICULUM

FIRST PROFESSIONAL YEAR			HOURS	* Clock
FALL QUARTER			CREDIT	Hours
Biomedical	110	Human Anatomy & Physiology I: Structure & Function - 1 (5 HRS. LEC., 2 HRS. LAB)	6	70
Biomedical	111	Optics Applied To The Eye I (4 HRS. LEC., 2 HRS. LAB)	5	
Optometry	110	Introduction to Optometry (3 HRS. LEC., 3 HRS. LAB)	4	
Optometry	111	Preventive and Community Optometry Epidemiology & Research Methodology (4 HRS. LEC.)	4	
Clinic	110	Clinic Orientation (2 HRS. LAB.)	1	
			<hr/>	
			Total 20	
WINTER QUARTER				
Biomedical	120	Human Anatomy & Physiology II: Structure & Function - 2 (5 HRS. LEC., 2 HRS. LAB)	6	70
Biomedical	121	Optics Applied To The Eye II (3 HRS. LEC., 2 HRS. LAB)	4	
Biomedical	122	Visual Perception: Psycho-Physiological Optics (4 HRS. LEC., 2 HRS. LAB)	5	
Optometry	120	Ophthalmic Diagnostic Principles I (3 HRS. LEC., 3 HRS. LAB)	4	
Optometry	121	Preventive & Community Optometry: Jurisprudence (2 HRS. LEC.)	2	
Clinic	110	Clinic Orientation (2 HRS. LAB)		
			<hr/>	
			Total 21	
SPRING QUARTER				
Biomedical	130	Human Anatomy & Physiology III: Structure & Function - 3 (5 HRS. LEC., 2 HRS. LAB)	6	70
Biomedical	131	Optics Applied To The Eye III (3 HRS. LEC., 2 HRS. LAB)	4	
Biomedical	133	Vegetative Physiology: Ocular Biochemistry (2 HRS. LEC., 2 HRS. LAB)	3	40
Optometry	130	Ophthalmic Diagnostic Principles II (4 HRS. LEC., 3 HRS. LAB)	5	
Optometry	131	History of Optometry (1 HR. LEC.)	1	
Clinic	110	Clinic Orientation (2 HRS. LAB)		
			<hr/>	
			Total 19	

*Note: One quarter hour credit is awarded upon completion of this course in the Spring Quarter.

*Clock hours = hrs per week x 10 wks. quarter

**SECOND PROFESSIONAL YEAR
FALL QUARTER**

			HOURS	Clkch	
			CREDIT	Hours	
●	Biomedical	210			Principles of Medicine I: General Pathology (5 HRS. LEC.)
			5	50	
	Biomedical	211			Physiological Optics: Eye As An Optical System (3 HRS. LEC., 2 HRS. LAB)
			4		
●	Biomedical	212			Neuroanatomy and Neurophysiology (3 HRS. LEC., 2 HRS. LAB)
			4	50	
●	Biomedical	213			Principles of Pharmacology & Therapeutics I (2 HRS. LEC.)
			2	20	
	Optometry	210			Advanced Optometry I (3 HRS. Lec., 2 HRS. LAB)
			4		
	Clinic	210			Clinical Procedures (2 HRS. LAB)
			1		
			<u>Total</u>	<u>20</u>	

WINTER QUARTER

●	Biomedical	220			Principles of Medicine II: Ophthalmic Pathology I (5 HRS. LEC., 2 HRS. LAB)
			6	70	
●	Biomedical	221			Physiological Optics II: Monocular Sensory (3 HRS. LEC., 2 HRS. LAB)
			4	50	
●	Biomedical	223			Principles of Pharmacology & Therapeutics II (4 HRS. LEC.)
			4	40	
	Optometry	220			Advanced Optometry II (3 HRS. LEC., 2 HRS. LAB)
			4		
	Optometry	222			Ophthalmic Optics I (2 HRS. LEC.)
			2		
	Clinic	210			Clinical Procedures (2 HRS. LAB)
			.		
			<u>Total</u>	<u>20</u>	

SPRING QUARTER

●	Biomedical	230			Principles of Medicine III: Ophthalmic Pathology II (5 HRS. LEC., 2 HRS. LAB)
			6	70	
●	Biomedical	231			Physiological Optics III: Monocular Sensory & Binocular Vision (2 HRS. LEC., 2 HRS. LAB)
			3	40	
●	Biomedical	233			Principles of Pharmacology & Therapeutics III (4 HRS. LEC.)
			4	40	
	Optometry	230			Advanced Optometry III (4 HRS. LEC., 2 HRS. LAB)
			5		
	Optometry	232			Ophthalmic Optics II (1 HR. LEC., 2 HRS. LAB)
			2		
	Clinic	210			Clinical Procedures (2 HRS. LAB)
			.		
			<u>Total</u>	<u>20</u>	

* Note: One quarter hour credit is awarded upon completion of this course in the Spring Quarter.

**THIRD PROFESSIONAL YEAR
FALL QUARTER**

			HOURS	Clkch	
			CREDIT	Hours	
●	Biomedical	310			Principles of Medicine IV: Pediatrics and Pediatric Optometry (2 HRS. LEC., 2 HRS. LAB)
			3	40	
●	Biomedical	311			Principles of Medicine V: Neurology (2 HRS. LEC.)
			2	20	
●	Biomedical	312			Principles of Medicine VI: Neuro-ophthalmic Disorders (3 HRS. LEC., 2 HRS. LAB)
			4	50	
●	Biomedical	313			Principles of Pharmacology & Therapeutics IV (2 HRS. LEC.)
			2	20	
	Optometry	310			Contact Lens Practice: I (3 HRS. LEC., 2 HRS. LAB)
			4		
	Optometry	311			Orthoptics & Vision Therapy I (3 HRS. LEC., 2 HRS. LAB)
			4		
	Clinic	310			Clinical Practice I (1 HR. LEC., 8 HRS. LAB)
					3
			<u>Total</u>	<u>22</u>	

WINTER QUARTER

●	Biomedical	320			Principles of Medicine VII: Gerontology & Geriatrics (3 HRS. LEC.)
			3		
●	Biomedical	322			Principles of Medicine VIII: Dermatology (2 HRS. LEC.)
			2	20	
●	Biomedical	323			Principles of Pharmacology & Therapeutics V (3 HRS. LEC., 2 HRS. LAB)
			4	50	
	Optometry	320			Contact Lens Practice II (3 HRS. LEC., 2 HRS. LAB)
			4		
	Optometry	321			Orthoptics & Vision Therapy II (3 HRS. LEC., 2 HRS. LAB)
			4		
	Clinic	320			Clinical Practice II (1 HR. LEC., 8 HRS. LAB)
					3
			<u>Total</u>	<u>20</u>	

SPRING QUARTER

●	Biomedical	333			Principles of Pharmacology & Therapeutics VI (3 HRS. LEC., 2 HRS. LAB)
			4	50	
	Optometry	331			Preventive & Community Optometry: Environmental Vision (3 HRS. LEC.)
			3		
	Optometry	332			Preventive & Community Optometry: Public Health (2 HRS. LEC.)
			2		
	Optometry	333			Limited Vision (Partial Sight) (3 HRS. LEC., 2 HRS. LAB)
			4		
	Optometry	334			Preventive & Community Optometry: Economics and Practice Management (3 HRS. LEC.)
			3		
	Clinic	330			Clinical Practice III (1 HR. LEC., 12 HRS. LAB)
			4		
	Clinic	331			Contact Lens Clinic (4 HRS. LAB)
			1		
	Clinic	332			Orthoptics and Vision Therapy Clinic (4 HRS. LAB)
			1		
			<u>Total</u>	<u>22</u>	

FOURTH PROFESSIONAL YEAR

A twelve-week externship is required during the fourth year. Externship information appears under COURSE DESCRIPTIONS (Clinic Department) in this catalog.

SUMMER QUARTER

			HOURS	CREDIT
Optometry	400	Optometry Seminar		2
Optometry	401	Clinical Case Analysis I (2 HRS. LEC.)		2
Clinic	400	Clinical Practice IV (1 HR. LEC., 20 HRS. LAB)		6
Clinic	401	Contact Lens Clinic (4 HRS. LAB)		1
Clinic	402	Orthoptics and Vision Therapy Clinic (4 HRS. LAB)		1
		OR		
Clinic	405	Externship		12
				<u>Total</u> 12

FALL QUARTER

Optometry	410	Optometry Seminar (2 HRS. LEC.)		2
Optometry	411	Clinical Case Analysis II (3 HRS. LEC.)		3
Clinic	410	General Clinic Practice V (1 HR. LEC., 18 HRS. LAB)		5
Clinic	411	Contact Lens Clinic (4 HRS. LAB)		1
Clinic	412	Orthoptics and Vision Therapy Clinic (4 HRS. LAB)		1
		OR		
Clinic	415	Externship		12
				<u>Total</u> 12

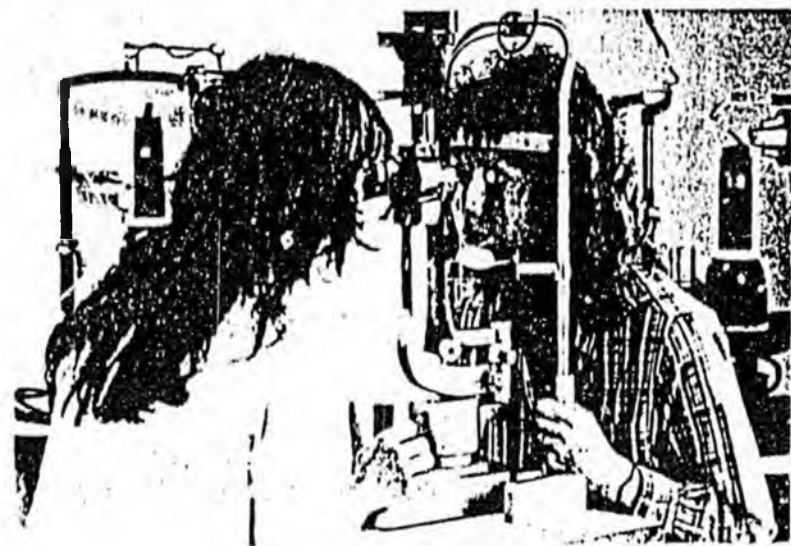
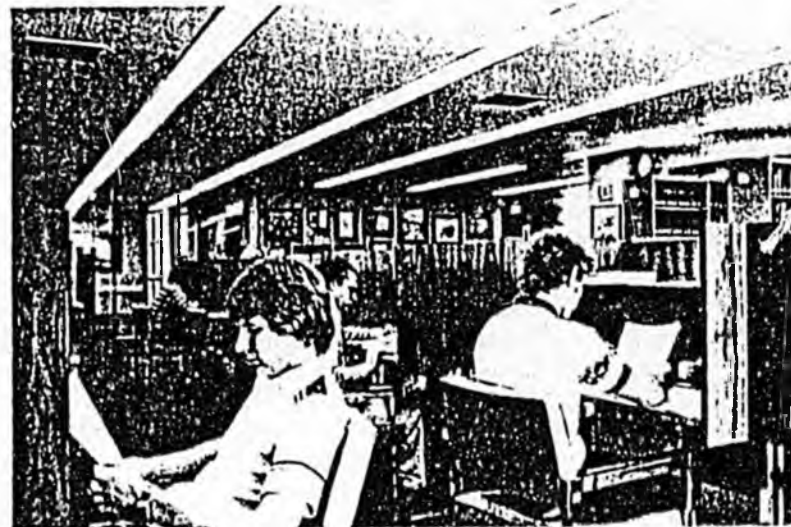
WINTER QUARTER

Optometry	420	Optometry Seminar (2 HRS. LEC.)		2
Optometry	421	Clinical Case Analysis III (2 HRS. LEC.)		2
Clinic	420	General Clinic Practice VI (1 HR. LEC., 20 HRS. LAB)		6
Clinic	421	Contact Lens Clinic (4 HRS. LAB)		1
Clinic	422	Orthoptics and Vision Therapy Clinic (4 HRS. LAB)		1
		OR		
Clinic	425	Externship		12
				<u>Total</u> 12

• Total basic science clock hours = 930

SPRING QUARTER

Optometry	430	Optometry Seminar (2 HRS. LEC.)		
Optometry	431	Clinical Case Analysis IV (3 HRS. LEC.)		
Clinic	430	General Clinic Practice VII (1 HR. LEC., 24 HRS. LAB)		
		OR		
Clinic	435	Externship		



TESTIMONY. IN SUPPORT OF HOUSE BILL 225
Health, Education and Social Services Committee
Alaska State House of Representatives
April 27, 1983

Handwritten:
H. 225
4/27 Hearing

Steve Dobson, O.D.

Gentlemen of the Committee, my name is Steve Dobson. I am an optometrist in private practice in Anchorage. I am a 1980 graduate of the Southern California College of Optometry, and in 1981 completed a one year residency in rehabilitative optometry at an outpatient clinic of the Veterans Administration hospital in Los Angeles.

My testimony will focus on optometric education, for the most frequent charge raised by ophthalmologists in opposing this type of legislation is that optometrists do not have a physician's broad medical background, which they say is necessary in order to do competent diagnosis and treatment.

It so happens, like many propaganda arguments, that this one has a grain of truth in it. What may appear to be a local inflammation can actually be a manifestation of infection or dysfunction elsewhere in the body. Experience in administering a variety of drugs in a variety of modes makes it easier to learn new drugs and new treatment protocols.

However if the argument is carried too far, it begins to break down. One can say that it is useful to be trained as a general physician before treating specific parts of the body. But is it absolutely necessary? Ophthalmologists, who are trained on the physician-specialist model, would say that a physician's background is necessary even to be able to judge when to treat a case and when to refer it for more specialized care. However it takes no special expertise to realize that if that were the case, then dentists and podiatrists, who are not trained as physicians, would be incompetent or only marginally competent.

Let's take a closer look at the alternative model of education, on which dentists, podiatrists and optometrists are trained. For convenience, I will consider just dentistry and optometry, but podiatry follows similar principles. Dentists and optometrists have at least as many hours of training in anatomy as physicians. But that training is structured differently. Their studies in gross human anatomy give somewhat less emphasis to the body below the neck but more emphasis in the head and neck region, as compared with medical students. This is followed by intensive study of organ systems of special interest - the teeth and oral cavity for dentists, the eye and adnexa for optometrists. This is a level of detail that physicians do not encounter until they enter specialty residencies. Other courses, such as general

physiology, microbiology and general pathology, are also slightly less detailed than those given medical students. But again, when corresponding studies in the target organ systems are added in, the hours exceed those of the medical student. If we take the process one step further and add the hours of the medical student and the resident together, the total hours in any given subject would now be greater than those for the dentist and optometrist. For optometry and dental students, classroom and laboratory time in these subjects, called basic science, totals about a thousand hours, or 25% of the total clock hours in the curriculum. The remainder is given over to specialized theory and procedures courses, and experience in the clinic.

At this point, let me interject that in case it should be supposed or alleged that optometric courses are not of the same quality as dental courses, I would point out that where optometry and dental schools are co-located, as at the University of Alabama in Birmingham and the University of Houston, optometry and dental students not only take the same courses but sit together in the same classrooms and laboratories whenever there is enough commonality in content to make this practical. For example, general physiology and microbiology in the case of Birmingham. In both optometry and dental schools, physicians are used in their areas of greatest expertise, primarily pathology and therapeutics. Pharmacology is taught by pharmacologists and physiology is taught

by physiologists.

Courses in the whole body emphasize unifying principles, which serve as a foundation for understanding all regions. At the stage of target organ study, specific interrelationships between target organ pathology and systemic pathology are learned. It is also at this stage that the student learns what effects a drug may have on other organs of the body.

Without putting too fine a point on it, it is hopefully evident from this that someone who will be working with a portion of the body and dealing with a specific set of interrelationships between this portion and the rest of the body does not have to have the same kind of whole body training as someone who will be treating many different parts of the body. The specializing physician model of education is a good one, but is it enough better than the dental model to justify the increased costs?

With respect to drugs, however, optometry has differed from dentistry until recent years. When the optometry laws were enacted in the first quarter of the century, restrictions against drug use were inserted into nearly every statute as a compromise with the physicians and oculists of the day, who opposed enactment of the optometry laws. In the succeeding years, optometry developed strong capabilities in the detection and diagnosis of ocular

pathology, but its lack of access to prescription drugs effectively limited its therapeutic services to conditions treatable with over the counter drugs, compresses and mechanical procedures. During the same period, ophthalmology developed from a primitive extension of general medicine into a recognized specialty. In the 1970s general and ocular pharmacology were removed from their positions within other courses in the optometric curriculum, and expanded into full fledged, free standing courses. Concurrently, optometrists introduced bills that would allow them to use drugs to aid in diagnosis, on the theory that such limited legislation would be easier to pass. There began a slow, state by state process of passing legislation, against fierce ophthalmological opposition. As of now, 36 states allow some form of drug use by optometrists. In 1976, West Virginia became the first state to enact legislation allowing optometrists to use drugs for both diagnostic and therapeutic purposes. In 1977, North Carolina passed a similar measure and Florida received an attorney general opinion favorable to the use of therapeutics. In 1980, Oklahoma passed enabling legislation. In support of these states, nearby optometry schools strengthened their programs in therapeutics. At present, drug-based therapeutics is taught at an undergraduate and postgraduate level by Pennsylvania College of Optometry in Philadelphia and Southern College of Optometry in Memphis, and by the University of Alabama at Birmingham School of Optometry on a postgraduate basis. Other schools are planning similar programs. Pennsylvania's therapeutics course was taken by a

majority of Alaska's ODs last year. Opportunities for additional clinical experiences in therapeutics developed quickly and dramatically. Federal law in 1976 formally established Optometry Services within the Veterans Administration hospital system. These Optometry Services provide primary eye care therapeutics, usually under the prescription signing arrangement noted by Dr. Demske. A number of the Services have developed 1 year residency programs for optometrists, such as the one I went through. Opportunities are also available for ODs and undergraduate optometry students to study at these hospitals for shorter periods of time. In Atlanta, there is a three year old optometric clinic that does nothing but treat ocular pathology on referral from physicians and optometrists in the area. Students from four optometry schools do semester rotations there, and similar centers are being planned in other cities. There is thus developing a spectrum of training opportunities, both basic and advanced, for optometrists in therapeutics.

It appears that at long last the quirks of the original optometry laws are being removed and optometry will be allowed to undergo a more natural evolution. Optometry will continue to compete with ophthalmology, as podiatry competes with orthopedic surgery, though in the case of optometry, surgical training is not on the horizon. While the medical branches may not like it, such competition is good for the public. Optometry, like podiatry, can now offer quality, cost effective services in areas where specialists are overtrained

HB 225
House HESS
Apr. 27, 1983
Dobson, p.7

and general practitioners are undertrained. Dentistry has no competition from medicine, but its training is also based on the more cost effective model.

One more thing needs to be said. Ophthalmologists have criticized other aspects of optometric education, saying that there are too few MDs teaching in optometry schools and that clinical experiences are not adequate. In point of fact, ophthalmologists have actively tried to hinder the education of optometrists. There is a great deal of peer pressure on ophthalmologists, and through them, on their colleagues in other branches, not to teach in optometry schools. In 1955, the American Medical Association, at the request of the Section on Ophthalmology, adopted a resolution declaring it unethical for a doctor of medicine to teach in a school or college of optometry. Such resolutions have more than nominal influence upon physicians, for unethical behavior can serve as the basis for denial of hospital privileges by individual hospital medical staffs. Some physicians ignored the directive and continued to teach, and schools filled in the gaps by using osteopaths, who were not affected. The resolution was rescinded 11 years later, in 1966.

Ophthalmology has also opposed virtually every piece of legislation that would facilitate the professional development

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of optometry, including funds for construction of optometry school buildings and clinics, Health Professions Student Loans, and capitation grants. Fortunately, most Congressmen and legislators saw the value of optometry to society, and the efforts of ophthalmology to block funding were largely unsuccessful. From 1964 to 1980, ophthalmologists were able to prevent reimbursement to optometric patients for services covered under Medicare. As a result, optometry lost 30% of its patient population over age 65. It also deprived optometry school clinics of a prime source of pathology for teaching purposes. It is not fair to criticize something when you are actively trying to bring about that which you criticize.

In conclusion, I would ask that you allow optometry in Alaska to take full advantage of the educational opportunities that are unfolding, so as to maximally benefit the public which it serves. Overly restrictive compromises will simply result in further legislative battles down the road. The bill in its present form conforms to the framework for decision making that has stood the test of time in other professions. It makes no legislative sense to take a responsible profession out of one box and place it in a slightly larger box. Given the opportunity, optometry will exercise the same good judgment as the other professions. And the public will be the beneficiary.

E. E. BACH, O.D.
PHILLIP W. BACH, O.D., Ph.D.
OPTOMETRY
SUITE 204 DENALI PROFESSIONAL CENTER
3401 DENALI STREET
ANCHORAGE, ALASKA 99503

May 1, 1983

The Honorable Mae Tischer
Chairman, Health, Education and
Social Services Committee
Alaska State House of Representatives
Pouch V
Juneau, Alaska 99811

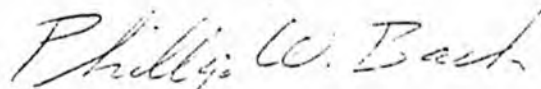
Dear Representative Tischer:

re: HB 225

The attached materials are being given to you and Rep. Goll:

1. Proposed list of drugs, in bill form. This is designed to replace section 6 on the original bill and on the proposed committee substitute we previously submitted to you.
2. Drug formulary prepared by Dr. Louis J. Catania, of the faculty of Pennsylvania College of Optometry, and one of the instructors in the therapeutics course taken by most Alaskan ODs last year. It served as the basis for the list in bill form.
3. Letter to me dated March 3, 1981 from Dr. Thomas L. Lewis, Academic Dean of Pennsylvania College of Optometry. This may give you some additional insights into the nature of training in ocular therapeutics.
4. Copy of the West Virginia Optometry Law, upon which the excellent track record of West Virginia is based. This statute limits drugs to those which are topically applied (drops or ointments, as opposed to oral or injectible drugs), but allows the board of examiners in optometry to approve or disallow specific drugs within that category. An advantage of this approach is that new legislation is not required every time a new drug comes out.

Very truly yours,



Phillip W. Bach, O.D., Ph.D.
Legislative Committee
Alaska Optometric Association

4 Attachments

* Sec. 6. AS 08.72 is amended by adding a new section to read:

Sec. 08.72.305. Legend drugs permitted. A licensee holding a certificate issued under AS 08.72.277 may employ or prescribe only those legend drugs specified under the following classifications:

- (a) Topical anesthetics
 - (1) Benoxinate
 - (2) Proparacaine
- (b) Anti-infectives
 - (1) Facitracin
 - (2) Chloramphenicol
 - (3) Erythromycin
 - (4) Gentamycin
 - (5) Polymixin B
 - (6) Sulfacetamide
 - (7) Tetracycline
 - (8) Tobramycin
- (c) Anti-glaucoma agents
 - (1) Acetazolamide
 - (2) Epinephrine
 - (3) Pilocarpine
 - (4) Timolol
- (d) Antihistamines
 - (1) Antazoline
 - (2) Pyrilamine
- (e) Anti-inflammatory agents
 - (1) Dexamethasone

- (2) Fluromethalone
- (3) Hydrocortisone
- (4) Prednisolone
- (f) Antivirals
 - (1) Idoxuridine
 - (2) Trifluridine
 - (3) Vidarabine
- (g) Decongestants
 - (1) Naphazoline
- (h) Hyperosmotics
 - (1) Sodium Chloride 2%, 5%
 - (2) Glycerin
- (i) Mydriatic/Cycloplegics
 - (1) Cyclopentolate
 - (2) Homatropine
 - (3) Phenylephrine 2.5%
 - (4) Tropicamide

Note: This replaces section 6 in the proposed committee substitute previously submitted and in the original bill. The original section 6 will not be needed if the new medical practice act (Senate Bill 169) is enacted.

SUGGESTED FORMULARY OF IN-OFFICE OPHTHALMIC PHARMACEUTICALS

Prepared by - Louis J. Catania, O.D.

CATEGORY	GENERIC NAME	BRAND NAME	CONCENTRATION(S)
Anesthetics	Benoxinate	Fluress	0.4%
	Proparacaine	Ophthaine	0.5%
Antiglaucoma	Acetazolamide	Diamox	250 mg.
	Glycerin	Osmoglyn	50%
	Pilocarpine	Isoptocarpine	1, 2, & 4%
	Timolol	Timoptic	0.25 & 0.50%
Antihistamines	Antazoline	Vasocon	1%
Anti-infectives	Sulfacetamide	Isoptocetamide	15%
	Gentamicin	Garamycin	0.3%
	Chloramphenicol	Chloroptic	1%
	Tobramycin	Tobrex	0.3%
	Tetracycline	Achromycin	1%
	Erythromycin	Ilotycin	5 mg/3.5g
	Zinc sulfate	Zincfrin	0.25%
-(Combinations)	Sulfacetamide/Predni- solone	Blephamide	10%/0.2%
	Polymyxin B/Bacatracin	Polysporin	10000/500 units
- Antivirals	IDU	Stoxil	0.5%
	Vidarabine	Vira A	3%
	Trifluridine	Viroptic	1%
- Antifungals	Natamycin	Natacyn	5%
Artificial Tears	Mucomimetics	Hypotears	
	Ointments	Lacrilube	
Corticosteroids	Prednisolone	Pred Forte	1%
	Fluoromethalone	FML	0.1%
	Dexamethasone	Decadron	0.1%
	Hydrocortisone	Hytone	0.5%, 1%
Decongestants	Naphazoline	Vasoclear	0.02%



1200 West Godfrey Avenue
Philadelphia, Pa. 19141
215 424 5900

Office of Academic Affairs

**Pennsylvania College
of Optometry**

March 3, 1981

The Eye Institute
1201 West Spencer Street
Philadelphia, Pa. 19141
215 276 6000

Phillip W. Bach, O.D., Ph.D.
Suite 204
Denali Professional Center
3401 Denali Street
Anchorage, Alaska 99503

Dear Doctor Bach:

In response to your request I have formulated a list of pharmaceutical agents which may be helpful in preparing your legislation. The current graduating class from the Pennsylvania College of Optometry has developed competency in utilizing pharmaceutical agents in the various categories and classifications listed below.

Currently the students at the College develop a theoretical knowledge of these pharmaceutical agents through various didactic courses, and expertise in the clinical utilization of these drugs through a variety of clinical experiences. These clinical experiences occur in various settings such as The Eye Institute of the Pennsylvania College of Optometry, Veterans Administration Medical Centers, Health Maintenance Organizations, Armed Forces Hospitals, and private practice settings.

A major emphasis of the curriculum at the College is the differential diagnosis of ocular diseases and systemic diseases with ocular complications. We feel the critical step in the management of ocular and visual disorders is the specific differential diagnosis. The application of pharmaceutical agents is simply one of the competencies necessary in the continuum of the diagnosis and management of ocular diseases.

Listed below are the major classifications and categories of pharmaceutical agents commonly utilized in the patient care setting of the College. Examples are given of different drugs in each category. This is not to be interpreted that other drugs within these categories are not utilized when specifically needed, based on the professional judgements of the clinician.

- I. Topical Anesthetics
 - Example: Proparacaine
 - Benoxinate
- II. Mydriatics
 - A. Sympathomimetics
 - Example: Phenylephrine
 - B. Parasympatholytics
 - Example: Atropine group
- III. Cycloplegics
 - A. Parasympatholytics
 - Examples: Atropine group
 - Cyclopentolate
- IV. Miotics
 - A. Examples: Pilocarpine
 - Anticholinesterases
- V. Antimicrobials
 - A. Antibiotics
 - Examples: Tetracycline
 - Erythromycin
 - Gentamicin
 - Chloramphenicol
 - Bacitracin
 - Cephalosporins
 - B. Antibacterial
 - Example: Sulfonamides
 - C. Antiviral
 - Example: Idoxuridine
 - D. Antifungal
 - Example: Natamycin
- VI. Anti-inflammatory
 - Example: Corticosteroids
- VII. Anti-glaucoma
 - A. Sympathomimetics
 - Example: Epinephrine
 - B. Sympatholytic
 - Example: Timolol Maleate
 - C. Parasympathomimetics
 - Examples: Pilocarpine
 - Anticholinesterases
 - D. Carbonic Anhydrase Inhibitors
 - Example: Acetazolamide

VIII. Antihistamines

Examples: Diphenhydramine
Antazoline

IX. Miscellaneous Legend Drugs

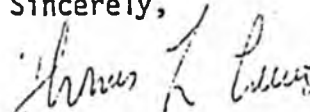
Example: Hyperosmotic Agents

X. Over-the-counter Drugs

Example: Dyes
Ocular Lubricants
Decongestants

I hope this list is of some help to you in constructing your new legislation. The Pennsylvania College of Optometry stands prepared to assist you educationally in meeting the visual care needs of the people of Alaska.

Sincerely,



Thomas L. Lewis, O.D., Ph.D.
Dean of Academic Affairs

TLL:dmf

HB

225

(FILE 2)

COMMITTEE REPORT
SENATE

FURTHER: LABOR AND COMMERCE

4/3/84

Date May 10 1984

Mr. President

The Committee on HESS considered CSH 225 (HRS 100)

practice of optometry and authorizing the use of certain drugs by optometrists.

and (a majority of the committee) (the committee) reports it back with the following recommendations:

- do pass
- do pass with attached amendment(s)
- replace with/or adopt CS for CSH 225 (HRS 100)
- new title
- same title and recommends do pass
- and attached a "LETTER OF INTENT" NEW FISCAL NOTE
- reports it back without recommendation
- recommends referral to _____ Committee

MEMBERS SIGNING
DO PASS

MEMBERS HAVING
OTHER RECOMMENDATIONS

[Signature]

[Signature]

[Signature]
Chairman

DO PASS
Chairman recommendation

SECTIONAL ANALYSIS FOR SENATE CS FOR CSHB 225 (HESS) - AN ACT RELATING TO OPTOMETRY AND AUTHORIZING THE USE OF CERTAIN DRUGS BY OPTOMETRISTS.

- SECTION 1 Amends the DUTIES of the MEDICAL BOARD to include assisting the board of optometry in the development of a list of diagnostic drugs for the use of optometrists with a license validation.
- SECTION 2 Amends the statute limiting those who may practice medicine in the state to include the use of diagnostic drugs by optometrists with a license validation.
- SECTION 3 Places on licensed physician on the Board of Optometry and specifies that the public member shall have no interest in optometry, medicine or opticianry.
- SECTION 4 Amends the optometry statute regarding adoption of regulations to include regulations on diagnostic drugs, and the educational requirements for a license validation to use drugs.
- SECTION 5 Adds to the POWERS AND DUTIES of the optometry board the development of a list of diagnostic drugs and their dosages to be used by optometrists with a license validation, to be done with the state medical board. The board must also provide for continuing education requirements and the development of a test concerning the use of diagnostic drugs.
- SECTION 6 Amends the REGISTRATION part of the optometry chapter to provide that an optometrist may not practice beyond the scope of training, with qualifications to be determined by the board.
- SECTION 7 Adds a new section to the optometry statute to require a medical referral by an optometrist who encounters a pathological condition in a patient.
- SECTION 8 Adds to the GROUNDS FOR IMPOSITION OF DISCIPLINARY SANCTIONS for optometrists new subsections relating to practice beyond the scope of the license, use of drugs in violation of the chapter and use of the word Doctor in the title without optometry.
- SECTION 9 Adds a new section relating to DIAGNOSTIC DRUGS to the optometry statute providing that an optometrist desiring to use drugs must be registered and certified in the state, prove educational qualifications, pass a board administered exam, complete continuing education to maintain a validation and that the Board must submit a list of optometrists with license validations to the Board of Pharmacy.
- SECTION 10 Amends definitions of optometry and practicing optometry to include diagnostic drugs, and adds a definition of diagnostic drugs limiting those to cyclopegics and mydriatics approved under this chapter.

* Sec. 17. AS 08.64.360 is amended to read:

Sec. 08.64.360. PENALTY FOR PRACTICING WITHOUT A LICENSE OR IN VIOLATION OF CHAPTER. Except for a physician assistant, [AND] a physician-trained mobile intensive care paramedic under AS 08.64.170, or a person licensed or authorized under another chapter of this title who engages in practices for which that person is licensed or authorized under that chapter, a person practicing medicine or osteopathy in the state without a valid [OBTAINING AND FILING AN APPROPRIATE] license or permit is guilty of a class A misdemeanor [AND UPON CONVICTION IS PUNISHABLE BY A FINE OF NOT LESS THAN \$50 NOR MORE THAN \$100, OR BY IMPRISONMENT FOR NOT LESS THAN 10 DAYS NOR MORE THAN 90 DAYS, OR BY BOTH. EVIDENCE THAT THE DEFENDANT HAS FAILED TO FILE A LICENSE WITH THE CLERK OF THE COURT IS PRIMA FACIE EVIDENCE THAT THE DEFENDANT IS NOT LICENSED]. Each day of illegal practice is a separate offense.

Ch. 48, SLA 1987

Offered: 2/29/84
Referred: Rules

Original sponsor: Martin

1 IN THE HOUSE

BY THE HEALTH, EDUCATION AND
SOCIAL SERVICES COMMITTEE

2

CS FOR HOUSE BILL NO. 225 (HESS) am

3

IN THE LEGISLATURE OF THE STATE OF ALASKA

4

THIRTEENTH LEGISLATURE - SECOND SESSION

5

A BILL

6

For an Act entitled: "An Act relating to the practice of optometry and

7

authorizing the use of certain drugs by optom-

8

etrists."

9

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA;

10

* Section 1. AS 08.64.170(a) is amended to read:

11

(a) A person may not practice medicine, podiatry, osteopathy, or

12

acupuncture in the state unless the person is licensed under this

13

chapter, except that

14

(1) a physician assistant may examine, diagnose or treat

15

persons under the supervision, control, and responsibility of either a

16

physician licensed under this chapter or a physician exempted from

17

licensing under AS 08.64.370;

18

(2) a physician-trained mobile intensive care paramedic may

19

render emergency lifesaving service;

20

(3) a person licensed under AS 08.36 may perform acupunc-

21

ture in the regular practice of dentistry, subject to the regulations

22

of the Board of Dental Examiners; [AND]

23

~~Legend drugs,~~ ⁽⁴⁾ a person licensed under AS 08.72 may use and prescribe

24

~~Legend drugs,~~ ^{(60)(C)(3)} as defined in AS 08.72.100, if the person's license is

25

^{VALIDATED} ~~endorsed~~ by the board of examiners in optometry as provided in

26

AS 08.72; and

27

(5) a person who is licensed or authorized under another

28

chapter of this title may engage in a practice that is authorized

29

under

that

chapter.

1 * Sec. 2. / 08.64.360 is amended to read:

2 Sec. 08.64.360. PENALTY FOR PRACTICING WITHOUT A LICENSE OR IN
3 VIOLATION OF CHAPTER. Except for a physician assistant, an optom-
4 etrlist, and a physician-trained mobile intensive care paramedic under
5 AS 08.64.170, or a person licensed or authorized under another chapter
6 of this title who engages in practices for which that person is li-
7 censed or authorized under that chapter, a person practicing medicine
8 or osteopathy in the state without a valid license or permit is guilty
9 of a class A misdemeanor. Each day of illegal practice is a separate
10 offense.

11 * Sec. 3. AS 08.72.240 is amended to read:

12 Sec. 08.72.240. GROUNDS FOR IMPOSITION OF DISCIPLINARY SANC-
13 TIONS. The board may impose disciplinary sanctions when the board
14 finds after a hearing that a licensee

15 (1) secured a license through deceit, fraud, or intentional
16 misrepresentation;

17 (2) engaged in deceit, fraud, or intentional misrepresenta-
18 tion in the course of providing professional services or engaging in
19 professional activities;

20 (3) advertised professional services in a false or mislead-
21 ing manner;

22 (4) has been convicted of a felony or other crime which
23 affects the licensee's ability to continue to practice competently and
24 safely;

25 (5) intentionally or negligently engaged in or permitted
26 the performance of patient care by persons under the licensee's super-
27 vision which does not conform to minimum professional standards re-
28 gardless of whether actual injury to the patient occurred;

29 (6) failed to comply with this chapter, with a regulation

- 1 adopted under this chapter, or with an order of the board;
- 2 (7) continued to practice after becoming unfit due to
- 3 (A) professional incompetence;
- 4 (B) failure to keep informed of or use current profes-
- 5 sional theories or practices;
- 6 (C) addiction or severe dependency on alcohol or other
- 7 drugs which impairs the licensee's ability to practice safely;
- 8 (D) physical or mental disability;
- 9 (8) engaged in lewd or immoral conduct in connection with
- 10 the delivery of professional service to patients;
- 11 (9) failed to refer a patient to the appropriate health
- 12 care practitioner for treatment of conditions beyond the scope of the
- 13 licensee's training; [AFTER ASCERTAINING THE POSSIBLE PRESENCE OF
- 14 OCULAR DISEASE]
- 15 (10) ^{diagnostic} used, dispensed, or prescribed a ~~legend~~ drug except as
- 16 provided in AS 08.72.277, or used, dispensed, or prescribed a drug in
- 17 violation of that section.

18 * Sec. 4. AS 08.72 is amended by adding a new section to read:

19 Sec. 08.72.277. USE, DISPENSING, OR PRESCRIPTION OF DRUGS. (a)

20 A licensee may not use, dispense, or prescribe a legend drug under

21 this chapter without a license endorsement issued by the board, certi-

22 fying the licensee's competence to use legend drugs.

23 (b) A licensee may not use, dispense, or prescribe any drug

24 identified by the United States Drug Enforcement Administration as a

25 controlled substance.

26 (c) A licensee may not use, dispense, or prescribe a legend drug

27 that is not prepared and marketed for topical application to the human

28 eye or eyelid. Topical drugs that may be used under this section

29 shall be limited to the following categories:

1 (1) cycloplegics;

2 (2) mydriatics.

3 (d) An applicant for a license endorsement under (a) of this
4 section shall furnish transcript credits or other evidence acceptable
5 to the board, showing that (1) the applicant has completed not less
6 than 200 hours of didactic instruction, practical training and super-
7 vised experience devoted exclusively to the subjects specified in this
8 subsection; (2) the instruction, training, and supervised experience
9 was given by an accredited school or college of optometry or medicine;
10 and (3) the applicant has passed written and practical examinations in
11 these subjects. The required subjects are general and ocular pharma-
12 cology, review of ocular pathology and differential diagnosis, and
13 treatment of pathology of the eye and its adnexa, including the use of
14 legend drugs.

15 (e) An endorsement under (a) of this section shall expire with
16 the license to which it attaches and may be renewed upon evidence of
17 satisfactory completion of a continuing education program specified by
18 regulation of the board for holders of an endorsement.

19 * Sec. 5. AS 08.72.300 is amended to read:

20 Sec. 08.72.300. DEFINITIONS. In [AS USED IN] this chapter

21 (1) "board" means the Board of Examiners in Optometry;

22 (2) [(6)] "department" means the Department of Commerce and
23 Economic Development; [.]

24 (3) "legend drugs" means drugs whose containers must bear a
25 label prohibiting dispensing without a prescription;

26 (4) "lenses" means conventional or contact lenses;

27 (5) [(2)] "optometry" is the examination [, OTHER THAN BY
28 THE USE OF DRUGS,] of the human eyes and the visual system for the
29 purpose of ascertaining a departure from the normal, ascertaining the

1 status of the human visual system, including refractive and functional
2 abilities, or ascertaining the presence of ocular disease and any
3 other departure from the normal that [WHICH] requires referral to
4 other health care practitioners; or the diagnosis of an optical defi-
5 ciency or deformity, visual or muscular anomaly of the human eye; or
6 the diagnosis and treatment, including the use of drugs but excluding
7 the use of surgery, of inflammations, infections, and injuries of the
8 eyes and eyelids; [,] or the prescription or application of lenses,
9 prisms or ocular exercises for the correction or relief of the human
10 eye;

11 (6) [(3)] "practicing optometry" is an examination [, OTHER
12 THAN BY THE USE OF DRUGS,] of the human eyes and visual system for the
13 purpose of ascertaining a departure from the normal, ascertaining the
14 status of the human visual system, including refractive and functional
15 abilities, or ascertaining the presence of ocular disease and any
16 other departure from the normal that [WHICH] requires referral to
17 other health care practitioners; or the diagnosis of an optical defi-
18 ciency or deformity, visual or muscular anomaly of the human eye; or
19 the diagnosis and treatment, including the use of drugs but excluding
20 the use of surgery, of inflammations, infections and injuries of the
21 eyes and eyelids; [,] or the prescription or application of lenses,
22 prisms or ocular exercises for the correction or relief of the human
23 eye; [,] or the holding of oneself out as being able to do so;

24 (7) [(5)] "recognized school or college of optometry" is
25 one which is approved by the American Optometric Association or one of
26 its committees. [;]

Sec 7, AS 08.72.240 is amended to read

(9) failed to refer a patient to the appropriate health care practitioner for treatment of conditions beyond the scope of the licensee's training; [after ascertaining the possible presence of ocular disease]

(10) used, dispensed or prescribed a diagnostic drug except as provided in AS 08.72.060 (c)(3), or used, dispensed or prescribed a drug in violation of that section.

(11) see pg. 2 lines 18-20.

* new section - AS 08.64.170(a) is amended to read:

(4) a person licensed under AS 08.72 may use and prescribe diagnostic drugs as provided in AS 08.72.060 (c)(3), if the person's license is validated by the Board of Examiners in Optometry as provided in AS 08.72; and

(5)

* new section AS 08.64.360 is amended to read:

AS 08.64.360. Penalty for Practicing without a license or in violation of Chapter. Except for a physician assistant or optometrist

and a physician-trained mobile intensive care paramedic, under AS 08.64.170, or a person licensed or authorized under another chapter of this title who engages in practices for which that person is licensed or authorized under that chapter, a person practicing medicine or osteopathy in the state without a valid license or permit is guilty of a Class A misdemeanor. Each day of illegal practice is a separate offense.

NEW SECTION AS 08.64 is amended by adding a
NEW ~~SECTION~~: subsection

~~SECTION~~ ~~SECTION~~

08.64.101. Duties.

WITH THE BOARD OF EXAMINERS OF OPTOMETRY

(6) develop a list of specific diagnostic drugs and their dosages that may be used in the practice of optometry in this state by a person licensed and registered by the board and with a license validation for the use of diagnostic drugs.

NEW SECTION - I would like a section providing the Board of Optometry will provide a list of licensees with diagnostic drug validation to be provided to the Board of Pharmacists.

Nancy
X4907

Josephson
5/10/83.

Original sponsor: Josephson

Need by
Friday morning
5/17/84

BY THE HEALTH, EDUCATION AND
SOCIAL SERVICES COMMITTEE

1 IN THE SENATE

2 *Senate* CS FOR *CS HB 225 (HESS)* ~~SENATE BILL NO. 189 (HESS)~~

3 IN THE LEGISLATURE OF THE STATE OF ALASKA

4 THIRTEENTH LEGISLATURE - FIRST SESSION

5 A BILL

6 For an Act entitled: "An Act relating to the practice of optometry and
7 authorizing the use of ^{*certain*} ~~diagnostic~~ drugs by optome-
8 trists."

9 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

10 * Section 1. AS 08.72.020 is amended to read:

11 Sec. 08.72.020. MEMBERSHIP OF BOARD AND TERMS OF OFFICE. The
12 board consists of six [FIVE] persons, appointed by the governor.
13 Members serve staggered terms of four years.

14 * Sec. 2. AS 08.72.040 is amended to read:

15 Sec. 08.72.040. QUALIFICATIONS. Four board members shall be
16 licensed, practicing optometrists who have been residents for at least
17 three years. One board member shall be a public member with no inter-
18 est, direct or indirect, in the practices of optometry, opticianry or
19 medicine. One board member shall be a physician licensed in this
20 state. A person who has served two successive complete terms may not
21 be reappointed until four years from the expiration of the second term
22 that the person served.

23 * Sec. 3. AS 08.72.050 is amended by adding a new paragraph to read:

24 (6) concerning the use of diagnostic drugs and the educa-
25 tional requirements for a license validation for their use.

26 * Sec. 4. AS 08.72.060(c) is amended by adding new paragraphs to read:

27 (3) with the advice and ^{*CONSENT*} [guidance] of the state medical
28 board, develop a list of specific diagnostic drugs and their dosages
29 that may be used in the practice of optometry in this state by a

1 person licensed and registered by the board and with a license valida-
2 tion for the use of diagnostic drugs; and

3 (4) provide for continuing education, including an examina-
4 tion, for optometrists desiring to use diagnostic drugs.

5 * Sec. 5. AS 08.72.120 is amended by adding a new subsection to read:

6 (b) An optometrist may not be registered or certified to prac-
7 tice optometry in this state beyond the scope of the optometrist's
8 training. The board of optometry shall determine the optometrist's
9 qualifications.

10 * Sec. 6. AS 08.72 is amended by adding a new section to read:

11 Sec. 08.72.235. REFERRAL TO MEDICAL SPECIALIST. An optometrist
12 who determines during the examination of a patient that a pathological
13 condition may exist shall

14 (1) advise the patient of the possible condition; and

15 (2) refer the patient to an appropriate medical specialist
16 for further evaluation.

17 * Sec. 7. AS 08.72.240 is amended ~~by adding a new paragraph~~ to read:

18 ** See notes attached* (1) has used the prefix "Dr." or "Doctor" before the licen-
19 see's name without using the word "optometrist" as a suffix to the
20 licensee's name or in connection with it.

21 * Sec. 8. AS 08.72 is amended by adding a new section to read:

22 Sec. 08.72.257. DIAGNOSTIC DRUGS. (a) An optometrist regis-
23 tered and certified to practice in this state who desires to employ
24 the use of diagnostic drugs shall

25 (1) submit to the board evidence of satisfactory completion
26 of the educational requirements of the board for the use of diagnostic
27 drugs; and

28 (2) pass an examination administered by the board.

29 (b) An optometrist seeking to be registered and certified to

(e)

1 practice in this state with a license validation for the use of diag-
2 nostic drugs shall

3 (1) submit to the board at the time of the licensing exam-
4 ination evidence of satisfactory completion of the board's educational
5 requirements for the use of diagnostic drugs; and

6 (2) pass an examination administered by the board.

7 (c) Upon a determination that the applicant in (a) or (b) of
8 this section has met the requirements for the use of diagnostic drugs,
9 the board shall validate the license of the optometrist or successful
10 applicant to allow the use of diagnostic drugs.

11 (d) An optometrist with a license validation for the use of
12 diagnostic drugs shall undertake the continuing education requirements
13 established under AS 08.72.060(4). Failure to fulfill the continuing
14 education requirements shall be grounds for revocation of the license
15 validation for the use of diagnostic drugs.

16 ~~(e) An optometrist with a diagnostic drug validation may by~~
17 ~~written order or prescription sell, give away, barter, exchange, or~~
18 ~~distribute diagnostic drugs.~~

19 * Sec. 9. AS 08.72.300(2) is amended to read:

20 (2) "optometry" is the examination, other than by the use
21 of drugs, except diagnostic drugs ^{SET OUT APPROVED IN THIS ACT} of the human eyes and the visual
22 system for the purpose of ascertaining a departure from the normal,
23 ascertaining the status of the human visual system, including refrac-
24 tive and functional abilities, or ascertaining the presence of ocular
25 disease and any other departure from the normal which requires refer-
26 ral to other health care practitioners; or the diagnosis of an optical
27 deficiency or deformity, visual or muscular anomaly of the human eye,
28 or the prescription or application of lenses, prisms or ocular exer-
29 cises for the correction or relief of the human eye;

1 * Sec. 10. AS 08.72.300(3) is amended to read:

2 (3) "practicing optometry" is an examination, other than by
3 the use of drugs, except diagnostic drugs, ^{SET OUT IN THIS ACT} of the human eyes and
4 visual system for the purpose of ascertaining a departure from the
5 normal, ascertaining the status of the human visual system, including
6 refractive and functional abilities, or ascertaining the presence of
7 ocular disease and any other departure from the normal which requires
8 referral to other health care practitioners; or the diagnosis of an
9 optical deficiency or deformity, visual or muscular anomaly of the
10 human eye, or the prescription of lenses, prisms or ocular exercises
11 for the correction or relief of the human eye, or the holding of
12 oneself out as being able to do so;

13 * Sec. 11. AS 08.72.300 is amended by adding a new paragraph to read:

14 (7) "diagnostic drug" means a cycloplegic, ^{OR} mydriatic ~~or~~
15 ~~topical anesthetic~~ that is listed in the official United States Phar-
16 macopoeia, or official National Formulary, or in a supplement to
17 either of them. AND APPROVED IN ACCORDANCE WITH AS 08.72.
18 OLC (C) (3)

1 * Sec. 10. AS 08.72.300(3) is amended to read:

2 (3) "practicing optometry" is an examination, other than by
3 the use of drugs, except diagnostic drugs, *as limited by this Act.* of the human eyes and
4 visual system for the purpose of ascertaining a departure from the
5 normal, ascertaining the status of the human visual system, including
6 refractive and functional abilities, or ascertaining the presence of
7 ocular disease and any other departure from the normal which requires
8 referral to other health care practitioners; or the diagnosis of an
9 optical deficiency or deformity, visual or muscular anomaly of the
10 human eye, or the prescription of lenses, prisms or ocular exercises
11 for the correction or relief of the human eye, or the holding of
12 oneself out as being able to do so;

13 * Sec. 11. AS 08.72.300 is amended by adding a new paragraph to read:

14 (7) "diagnostic drug" means a cycloplegic, mydriatic or
15 topical anesthetic that is listed in the official United States Phar-
16 macopoeia, or official National Formulary, or in a supplement to
17 either of them, *and approved in accordance with AS 08.72.060 (c) (3)*

18
19 Sec. 9. AS 08.72.290 is repealed and reenacted to read:

20 Sec. 08.72.290. PENALTY FOR PRACTICING WITHOUT A LICENSE
21 OR IN VIOLATION OF CHAPTER. A person practicing
22 optometry in the state without a valid license or permit or
23 who violates this chapter is guilty of a class ~~B~~^A misdemeanor.
24 Each day of illegal practice is a separate offense.

25 Sec. 13. AS 08.64 is amended by adding a new Sec. 08.64.108

26 Sec. 08.64.108. Regulation of diagnostic drugs as used in the
27 practice of optometry. The board shall adopt regulations necessary
28 to carry into effect the provisions of AS 08.72.060 (c) (3).
29

pg 1 guidance to consent

pg 3 sic (e) parties etc

cf. except diagnostic
drugs appeared in
this act.

practising w/o lic. fine

date of Bd. of Med to
include this.

Notify Bd. of Pharm.

Controlled subst. Act.

- ① Should we specify exact drug & dosage or allow board to do?
- ② training course required?
- ③ Exam - testing Committee development of test w/ Medical board?
- ④ mandatory referral language.

H B

2 25

(FILE 3)

Alaska State Legislature

REP. MAE TISCHER
CHAIRMAN



POUCH V
STATE CAPITAL
JUNEAU, ALASKA 99801
(907) 465-3777

House of Representatives
HEALTH, EDUCATION AND SOCIAL SERVICES COMMITTEE

February 22, 1984

HOUSE BILL 225 MEMBER'S FILE
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- 2) Comparison and Sectional Analysis from Legal Counsel: HB 225 and Proposed CSHB 225 (HESS) Version #3, February 17, 1984
- 3) Proposed CSHB 225 (HESS) Version #1, May 7, 1983
- 4) Proposed CSHB 225 (HESS) Version #2, May 7, 1983
- 5) Department of Health & Social Services Position Paper, March 8, 1983
- 6) Department of Health & Social Services Position Paper, May 14, 1983
- 7) Alaska Statutes: AS 08.64.170 (Licensing)
AS 08.64.350 - 08.64.360 (Unlawful Acts)
AS 08.72.010 - 08.72.080 (Board of Examiners)
AS 08.72.115 - 08.72.130 (Malpractice)
AS 08.72.230 - 08.72.310 (Optometry)
- 8) HESS Committee Minutes, April 27, 1983
- 9) HESS Committee Minutes, May 11, 1983
- 10) HESS Committee Minutes, May 18, 1983
- 11) HESS Committee Minutes, May 19, 1983
- 12) HESS Committee Minutes, January 21, 1984

Because these are
available on STAIRS
these were deleted from
this file.

James Henry
8/28/84

Alaska State Legislature

REP. MAE TISCHER
CHAIRMAN



POUCH V
STATE CAPITAL
JUNEAU, ALASKA 99811
(907) 465-3777

House of Representatives
HEALTH, EDUCATION AND SOCIAL SERVICES COMMITTEE

February 22, 1984

HOUSE BILL 225 MEMBER'S FILE
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- 3) Proposed CSHB 225 (HESS) Version #1, May 7, 1983
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- 5) Department of Health & Social Services Position Paper, March 8, 1983
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- 7) Alaska Statutes: AS 08.64.170 (Licensing)
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AS 08.72.220 - 08.72.310 (Optometry)
- 8) HESS Committee Minutes, April 27, 1983
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STATE OF ALASKA
THE LEGISLATURE

LEGISLATIVE AFFAIRS AGENCY


MEMORANDUM

February 17, 1984

SUBJECT: Optometry
(HB 225)

TO: Representative Mae Tischer
Chairman, House Health, Education,
and Social Services Committee

FROM: Russ Josephson
Legislative Counsel

 You have requested a comparison of the introduced version of HB 225 and the committee substitute for your committee dated February 3, 1984. Perhaps it will be easiest to compare the two bills if I begin with a brief sectional analysis of each bill.

HB 225

Section 1 Amends the provision of law governing the practice of medicine by persons other than physicians by adding a new paragraph allowing optometrists to use certain drugs under the provisions of the remainder of the bill.

Section 2 Provides for identification and approval of (1) training programs for the use of drugs and (2) continuing education programs. Also provides for license endorsements certifying completion of required training for drug use, regulations concerning the use or prescription of legend drugs, the loss of license endorsements for violations of those regulations, and the furnishing of the names of holders of license endorsements to the board of pharmacy.

Section 3 Amends the definition of "optometry" reflect the provisions of the bill for the use of drugs.

Section 4 Amends the definition of "practicing optometry" as in Section 3.

Section 5 Adds a definition of "legend drugs".

Section 6 Adds optometrists to those excepted from the provisions of law penalizing the practice of medicine by persons who are not physicians.

CSHB 225 (HESS)

Section 1 Provides an additional ground for the imposition of disciplinary sanctions that the board of examiners in optometry may impose under AS 08.72.240: use, dispensing, or prescription of a drug in violation of the new provision regulating drug use by optometrists (Section 2). In addition, provides a modification of the provision that requires referrals to appropriate health care practitioners.

Section 2 Adds a new section to the statutes, providing for the use of legend drugs, excluding controlled substances and other types of drugs. Lists the categories of topical legend drugs that may be used by an optometrist who has obtained a license endorsement from the board of examiners in optometry. Lists the requirements for a license endorsement, including the required training before and after receiving an endorsement.

Section 3 Contains a new definition, "legend drugs". Also amends the definitions of "optometry" and "practicing optometry" to reflect the provisions of the bill concerning the use of drugs. The definition of "legend drugs" is identical to that in the introduced version of the bill. The amendments of "optometry" and "practicing optometry" differ from those in the introduced version of HB 225 in that they have added a phrase to exclude the use of surgery in diagnosis and treatment. The definitions in the introduced version of the bill do not mention surgery.

As you can see, the two bills accomplish basically the same thing. The major differences are as follows:

HB 225 contains (in Sections 1 and 6) amendments regarding the practice of medicine and providing the necessary exemptions for optometrists using drugs. CSHB 225 (HESS) does not contain these provisions, but it should.

Representative Mae Tischer
Page 3
February 17, 1984

Both bills provide for license endorsements and for the training required before and after receiving an endorsement. HB 225 provides for regulations to handle those requirements; CSHB 225 (HESS) provide more detail in the statute.

CSHB 225 (HESS) provides a new ground for discipline by the board of examiners in optometry; violation of the provisions concerning drugs. It also amends another ground for discipline, failure to refer a patient to the appropriate health care practitioner. Neither of these provisions was in the introduced version of the bill. HB 225 did provide for regulations concerning the use or prescription of legend drugs, and it provided for the suspension or revocation of the license endorsement for violation of the regulations.

CSHB 225 (HESS) is more specific than HB 225 in its detailing of the types of drugs that may be used by optometrists.

The definitions in CSHB 225 (HESS) contain provisions concerning the prohibition of surgery in diagnosis and treatment by optometrists. Similar language does not appear in HB 225.

HB 225 provided for the names of endorsement holders to be submitted to the board of pharmacy. CSHB 225 (HESS) does not contain this provision.

I trust these sectional analyses and this comparison will be useful. If I may be of further service, please call.

RJ:ojb
J3/111

POSITION PAPER

DRAFT COMMITTEE SUBSTITUTE FOR HOUSE BILL NO. 225 (HESS)

For an Act entitled: "An Act relating to the practice of optometry and authorizing the use of certain drugs by optometrists."

This draft Committee Substitute differs from the original Bill in several significant ways:

1. It permits the board of optometry to impose disciplinary sanctions on optometrists who fail to refer a patient to an appropriate health care practitioner for treatment of conditions beyond the scope of the licensee's training.
2. It forbids use of controlled substances.
3. It permits use of topical ophthalmic drugs only in contrast to the original Bill which would have permitted use of systemic drugs.
4. It defines the types of topical drugs which can be used and eliminates a role for the board in determining what drugs can be used.
5. It defines the type of training which must be obtained before a license endorsement can be issued in contrast to the original Bill which required the board to issue regulations prescribing training.
6. It prohibits the practice of surgery by optometrists.

This draft Committee Substitute, in the view of the Department, is a definite improvement over the original Bill. The Department would still prefer to restrict the types of topical drugs which are authorized to diagnostic drugs.

Recommended by: _____
E. S. Rabeau, M.D.
Director
Division of Public Health

Date: _____

Approved by: _____
Robert London Smith, Ph.D.
Commissioner
Department of Health and
Social Services

Date: _____

MAR 5 1963

"An Act relating to the practice of optometry and authorizing the use of prescription drugs by optometrists."

This Bill would permit the use of legend drugs by certain optometrists and would delete from the definition of optometry the restriction against the use of drugs. Legend drugs as defined in Section 5 of the Bill "means drugs whose containers must bear a label prohibiting dispensing without a prescription". The Bill also specifically permits optometrists to engage in the "diagnosis and treatment, including the use of drugs, of inflammations, infections and injuries of the eyes and eyelids".

A majority of states now allow optometrists to use diagnostic topical drugs, either through specific enabling legislation or through the lack of specific prohibitions. Few, if any, permit the use of therapeutic drugs. This Bill, as now written, would apparently permit the use of any drug, whether topical or systemic, in the diagnosis and treatment by an optometrist of inflammations, infections and injuries of the eyes and eyelids. Arguably, the proposed legislation may be construed to permit the practice of ophthalmologic surgery by optometrists since surgery is not specifically prohibited.

Even the use of diagnostic topical drugs by optometrists, i.e., drugs which cause the pupil to open or to close down or which paralyze the muscles which control the shape of the lens, has been controversial. Those in favor of the use of drugs by optometrists argue that optometric services are more widely distributed than ophthalmologic services and that the optometrist serves as an entry point for primary eye care. The use of diagnostic drugs is said to expand the ability of the optometrist to recognize eye abnormalities and to increase medical referral for diagnosis and treatment. The optometric group also states that the use of diagnostic drugs rarely causes adverse effects.

Those opposing such legislation argue that the use of drugs would not materially improve the capacity of optometrists to recognize abnormalities. Optometrists are not expected to diagnose diseases of the eye and, if a departure from normal is noted, the patient is expected to be referred to a physician for diagnosis. The concern on the part of the medical community is that the optometrists would be making diagnostic judgements which the physicians do not believe them qualified to make. Moreover, the medical community notes that adverse reactions, while admittedly rare for certain of the diagnostic drugs, can have extremely serious consequences when they do occur. A higher rate of predisposition to a certain type of glaucoma in Alaska Natives is cited. Use of mydriatic drugs could possibly precipitate an attack. The potential use of therapeutic drugs can be expected to raise even greater concern.

Limitations are placed on the use of certain diagnostic drugs by legislation in some states. In Oregon, for example, the Board of Optometry is empowered to designate the diagnostic pharmaceutical agents for topical use, but provides that the designation shall be with the advice and guidance of the Board of Medical Examiners.

Some states define the type of training in pharmacology which would be required before an optometrist would be permitted to use even diagnostic drugs. HB 225 contains no such provisions.

The Department of Health and Social Services does not support HB 225 in its present form because of the overly broad definition of the types of drugs which would be authorized, vagueness with regard to the limits of optometric practice and lack of provisions with regard to the educational qualifications required for use of drugs. If the Legislature chooses to authorize use of certain drugs by optometrists, the Department suggests that definitions and restrictions similar to those in use in other states may be advisable and that the professional opinion of the medical and optometric communities should be sought to insure the health and safety of the general public.

Recommended by:

E. S. Rabeau
E. S. Rabeau, M.D., Director
Division of Public Health

Date:

2/25/83

Approved by:

Robert London Smith
Robert London Smith, Ph.D.
Commissioner
Dept. of Health & Social Services

Date:

3/1/83

STATE OF ALASKA
PRELIMINARY STATEMENT OF FISCAL IMPACT

Bill No: House Bill No. 225 Date on Bill: February 23, 1983
 Title: "An Act relating to the practice of optometry and authorizing the use of prescription
 Sponsor: Hurlbert drugs by optometrists."
 Requestor: _____

1. Estimated fiscal impacts on:

a. Expenditures:

(Thousands of Dollars)

			FY 83	FY 84	FY 85	FY 86		
Capital			0	0	0	0		
Operating			0	0	0	0		
Total			0	0	0	0		

B. Revenues:

Revenue								
---------	--	--	--	--	--	--	--	--

2. Source of funds to offset fiscal impact of bill:

3. Assumptions:

4. Disclaimer:

This statement has not been reviewed by OMB in the Office of the Governor. It does not represent the policy of the Sheffield Administration or the final estimate of fiscal impact.

Prepared by: Dean F. Tirador, M.D. *DAFA* Phone: 465-2113
 Division: Public Health Date: February 25, 1983

Approved by Commissioner: Robert London Smith, Ph.D. Date: 3/1/83
 Department: Health & Social Services

5. Distribution:

- Original to Legislative Finance
- Copy to OMB
- Copy to Sponsor
- Copy to Requestor

2/8/83

STATE OF ALASKA
FISCAL NOTE

Revision Date 4/12, 1983

I. REQUEST

Bill/Resolution No.: HB 225
 Title: "Optometrist - Use of Drugs"
 Sponsor: Hurlbert
 Requestor: HESS Committee

II. FISCAL DETAIL

Agency Affected: Commerce & Econ. Devp.
 Program Category Affected: PUBLIC PROT.
 BRU, Program of Subprogram(s) Affected: Occupational Licensing

EXPENDITURES/REVENUES: (Thousands of Dollars)

	FY 83	FY 84	FY 85	FY 86	FY 87	FY 88
OPERATING						
100 PERSONAL SERVICES		31.6	33.1	34.6	36.2	37.9
200 TRAVEL		2.0	2.1	2.2	2.4	2.5
300 CONTRACTUAL		1.5	1.6	1.7	1.7	1.8
400 COMMODITIES		0.5	0.5	0.6	0.6	0.6
500 EQUIPMENT		2.7	-0-	-0-	-0-	-0-
600 LAND & STRUCTURES						
700 GRANTS, CLAIMS, ETC.						
TOTAL OPERATING		38.3	37.3	39.1	40.9	42.8
CAPITAL						
REVENUE						

FUNDING: (Thousands of Dollars)

GENERAL FUND		38.3	37.3	39.1	40.9	42.8
FEDERAL FUNDS						
OTHER (Specify Source)						

POSITIONS:

FULL-TIME		1	1	1	1	1
PART-TIME						
TEMPORARY						

III. SOURCE OF FUNDS TO OFFSET FISCAL IMPACT OF BILL:

Not identified by sponsor.

IV. ANALYSIS: Attach a separate page for any Analysis

Prepared By: Darrell Miller
 Division: Occupational Licensing

Phone: 465-2535
 Date: 4/12/83

Approved by Commissioner: Richard A. Lyon
 Department: Commerce & Economic Development

Date: 4/13/83

Distribution:

Original to Legislative Finance
 Copy to Office of Management and Budget (for Legislature introduced bills)
 Copy to Department (for Governor introduced bills)
 Copy to Sponsor
 Copy to Requestor (if different from Sponsor)

3/8/83

HB 225 FISCAL IMPACT

(Note: 5% inflation factor projected for FY '84 through
FY '88 for operating cost)

100 PERSONAL SERVICES - (FY '83 salary schedule plus 5% inflation factor)

1 Licensing Examiner, Range 12A,
General Government, 12 months,
to be located in Juneau \$31,602.00

200 TRAVEL

4 board meetings annually (2 days each
@ \$80.00/day per diem = \$160.00 x 4) \$ 640.00
Transportation - board meetings annually
(\$350.00 each x 4) 1,400.00
\$ 2,040.00

300 CONTRACTUAL

Postage, telephone, printing, publications
and operating costs \$ 1,500.00

400 COMMODITIES

Stationery, typewriter ribbons, pens,
pencils, and other miscellaneous desk
top supplies \$ 500.00

500 EQUIPMENT (One time cost, FY '84 only)

1 desk, double pedestal, 60" x 30" \$ 427.00
1 chair, swivel w/arms 202.00
1 typewriter, IBM Selectric II 1,129.00
1 typewriter table 94.00
1 chair, side, without arms 104.00
1 desk calculator 332.00
1 book case 138.00
1 file cabinet, 4 drawer, legal with lock 306.00
\$ 2,732.00

One position total: \$38,374.00

SPECIFIC LEGISLATION: 32 States

The list (and dates of enactment) of the 32 states with current legislation specifically authorizing optometrists to utilize pharmaceutical agents is as follows:

<u>STATE</u>	<u>DATE OF ENACTMENT</u>
Rhode Island	July 16, 1971
Pennsylvania	March 1, 1974
Tennessee	May 8, 1975
Oregon	May 20, 1975
Maine	June 24, 1975
Louisiana	July 6, 1975
Delaware	July 10, 1975
West Virginia*	March 4, 1976
California	July 9, 1976
Wyoming	February 17, 1977
New Mexico	March 4, 1977
Montana	April 12, 1977 (at 10:10 a.m.)
Kansas	April 12, 1977 (at 2:00 p.m.)
North Caroli: 3*	June 3, 1977
Kentucky	March 29, 1978
Wisconsin	April 29, 1978
Nebraska	February 13, 1979
South Dakota	March 15, 1979
Utah	March 21, 1979
North Dakota	March 22, 1979
Arkansas	April 2, 1979
Nevada	May 25, 1979
Iowa	June 8, 1979
Georgia	February 14, 1980
Arizona	April 25, 1980
Idaho	March 23, 1981
Oklahoma	April 6, 1981
Washington	April 23, 1981
Missouri	July 24, 1981
Minnesota	March 8, 1982
Mississippi	March 17, 1982
Virginia	February 25, 1983

*both diagnostic and therapeutic use

NOTE: None of these laws has ever been repealed. However, a July 30, 1982 opinion of the Texas state attorney general has rendered that state's unusual provision (an amendment to the medical practice act), which was enacted on August 5, 1981, inoperative.

GENERAL LEGISLATION: 4 states

There are four states which authorize the use of pharmaceutical agents by optometrists by extant general law or favorable attorney general opinion:

Alabama	(diagnostic use)
Florida	(diagnostic and therapeutic use)
Indiana	(diagnostic use)
New Jersey	(diagnostic use)

NOTE: In addition, in Michigan, while there is no statutory prohibition of the use of pharmaceutical agents by optometrists, there is a negative opinion of the state attorney general.

For your information we are including an updated map showing, geographically, the utilization of pharmaceutical agents by optometrists.

Note: Section 39, chapter 842, Oregon Laws 1977, is operative July 1, 1986, and provides:

Sec. 39. ORS 683.010, 683.020, 683.030, 683.035, 683.040, 683.050, 683.060, 683.070, 683.080, 683.100, 683.110, 683.120, 683.130, 683.140, 683.155, 683.170, 683.180, 683.190, 683.210, 683.250, 683.260, 683.270, 683.275, 683.280, 683.290 and 683.990 relating to optometrists are repealed.

GENERAL PROVISIONS

683.010 Definitions. As used in this chapter, unless the context requires otherwise:

(1) "Board" means the Oregon Board of Optometry.

(2) "Practice of optometry" means the employment of any means other than the use of drugs, except diagnostic agents, topically applied, known generically as cycloplegics, mydriatics, topical anesthetics, dyes such as fluorescein, and, for emergency use only, miotics, for the measurement or assistance of the powers or range of human vision or the determination of the accommodative and refractive states of the human eye or the scope of its functions in general or the adaptation of lenses or frames for the aid thereof, subject to the limitations of ORS 683.040.

(3) "Trial frames" or "test lenses" means any frame or lens used in testing the eye which is not sold and not for sale. [Amended by 1971 c.102 §1; 1975 c.175 §1]

683.020 Certificate of registration required to practice optometry. No person shall engage in the practice of optometry or display a sign or in any other way advertise or hold himself out as an optometrist without having first obtained a certificate of registration from the board as provided for in this chapter. In any prosecution for the violation of this section, the use of test cards, test lenses or of trial frames is prima facie evidence of the practice of optometry. [Amended by 1971 c.102 §2]

683.030 Persons and practices not affected. This chapter shall not be construed to prevent any person duly licensed to practice medicine and surgery from treating or fitting glasses to the human eye, nor to prohibit the sale of complete ready-to-wear eye glasses as merchandise from a permanent place of business in good faith and not in evasion of this chapter by any person not holding himself out as competent to examine and prescribe for the human eye.

683.035 Discrimination against optometrists prohibited. No official, board, commission or other agency of the state or of any of its political subdivisions or municipalities shall discriminate between duly licensed optometrists and any other person authorized by law to render professional services which a duly licensed optometrist may render, when such services are required. Such services shall be paid for in the same manner and under the same standards as similar professional services. [1963 c.121 §1]

LICENSING

683.040 Qualifications of applicants.

(1) Every person desiring to commence the practice of optometry in this state must show by satisfactory evidence that he is of good moral character and has graduated from a school of optometry which is recognized and approved by the board and which maintains a standard of four school years of at least nine months each.

(2) Every person desiring to commence the practice of optometry after January 1, 1976, or employ the use of diagnostic agents shall in addition to the requirements of subsection (1) of this section have satisfactorily completed a course in pharmacology, as it applies to optometry, by an institution accredited by a regional or professional accreditation organization which is recognized or approved by the National Commission on Accrediting or the United States Commissioner of Education, with particular emphasis on the topical application of diagnostic agents to the eye for the purpose of examination of the human eye and the analysis of ocular functions, approved by the Oregon Board of Optometry. [Amended by 1971 c.102 §3; 1975 c.175 §2]

683.050 Persons licensed in another state. In lieu of the educational requirements of ORS 683.040, it shall be deemed equivalent if an applicant submits satisfactory proof to the board that he:

(1) Has passed an examination in optometry before a state board of examiners in another state of the United States and that the certificate granted in token thereof is then in force; and

(2) Was actually engaged in the practice of optometry in such state for the full period of three years subsequent thereto.

Alaska State Legislature

REP. MAE TISCHER
CHAIRMAN



POUCH V
STATE CAPITAL
JUNEAU, ALASKA 99811
(907) 465-3777

House of Representatives
HEALTH, EDUCATION AND SOCIAL SERVICES COMMITTEE

MEMORANDUM

TO: Chairman, House Rules Committee
FROM: Representative Mae Tischer, Chairman, House HESS *MT*
DATE: March 26, 1984
RE: Back-up materials for HB 225

Attached please find back-up materials obtained by the House HESS Committee staff on the bill described above.

I hope this material is valuable to your committee.
If my staff or I may be of additional assistance, please feel free to contact my office at 3777.

Attachment

* Sec. 6. AS 08.72 is amended by adding a new section to read:

Sec. 08.72.305. Legend drugs permitted. A licensee holding a certificate issued under AS 08.72.277 may employ or prescribe only those legend drugs specified under the following classifications:

(a) Topical anesthetics

- (1) Benoxinate
- (2) Proparacaine

(b) Anti-infectives

- (1) Bacitracin
- (2) Chloramphenicol
- (3) Erythromycin
- (4) Gentamycin
- (5) Polymixin B
- (6) Sulfacetamide
- (7) Tetracycline
- (8) Tobramycin

(c) Anti-glaucoma agents

- (1) Acetazolamide
- (2) Epinephrine
- (3) Pilocarpine
- (4) Timolol

(d) Antihistamines

- (1) Antazoline
- (2) Pyrilamine

(e) Anti-inflammatory agents

- (1) Dexamethasone

- (2) Fluromethalone
- (3) Hydrocortisone
- (4) Prednisolone
- (f) Antivirals
 - (1) Idoxuridine
 - (2) Trifluridine
 - (3) Vidarabine
- (g) Decongestants
 - (1) Naphazoline
- (h) Hyperosmotics
 - (1) Sodium Chloride 2%, 5%
 - (2) Glycerin
- (i) Mydriatic/Cycloplegics
 - (1) Cyclopentolate
 - (2) Homatropine
 - (3) Phenylephrine 2.5%
 - (4) Tropicamide

Note: This replaces section 6 in the proposed committee substitute previously submitted and in the original bill. The original section 6 will not be needed if the new medical practice act (Senate Bill 169) is enacted.

Anesthetics	Benoxinate	Fluress	0.4%
	Proparacaine	Ophthaine	0.5%
Antiglaucoma	Acetazolamide	Diamox	250 mg.
	Glycerin	Osmoglyn	50%
	Pilocarpine	Isoptocarpine	1, 2, & 4%
	Timolol	Tinoptic	0.25 & 0.50%
Antihistamines	Antazoline	Vasocon	1%
Anti-infectives	Sulfacetamide	Isoptocetamide	15%
	Gentamicin	Garamycin	0.3%
	Chloramphenicol	Chloroptic	1%
	Tobramycin	Tobrex	0.3%
	Tetracycline	Achromycin	1%
	Erythromycin	Ilotycin	5 mg/3.5g
	Zinc sulfate	Zincfrin	0.25%
-(Combinations)	Sulfacetamide/Prednisolone	Blephamide	10%/0.2%
	Polymyxin B/Bacitracin	Polysporin	10000/500 units
- Antivirals	IDU	Stoxil	0.5%
	Vidarabine	Vira A	3%
	Trifluridine	Viroptic	1%
- Antifungals	Natamycin	Natacyn	5%
Artificial Tears	Mucomimetics	Hypotears	
	Ointments	Lacrilube	
Corticosteroids	Prednisolone	Pred Forte	1%
	Fluoromethalone	FML	0.1%
	Dexamethasone	Decadron	0.1%
	Hydrocortisone	Hytone	0.5%, 1%
Decongestants	Naphazoline	Vasoclear	0.02%
	Phenylephrine	Preffin	0.12%
-Combination	Naphazoline/Zinc Sulfate	Vasoclear-A	0.02%/0.25%
Dyes	Sodium Fluorescein	Barnes Hind Sterile Strips	0.6 mg.
	Rose Bengal	" " "	1%
Hyperosmotics	Sodium Chloride	Adsorbonac	2, 5%
	" " Oint.	Muro #128	5%
Irrigations	Buffered Solution	Dacriose	0.9%
	" Saline	Eye Stream	0.9%
Mydriatic/Cycloplegias	Cyclopentolate	Cyclogyl	0.5, 1 & 2%
	Homatropine	Isoptohomatropine	2 & 5%
	Tropicamide	Mydriacyl	0.5 & 1%
	Phenylephrine	Neosynephrine	2.5%
	Hydroxyamphetamine	Paradrine	1%



1200 West Godfrey Avenue
Philadelphia, Pa. 19141
215 424 5900

Office of Academic Affairs

**Pennsylvania College
of Optometry**

March 3, 1981

The Eye Institute
1201 West Spencer Street
Philadelphia, Pa. 19141
215 276 6000

Phillip W. Bach, O.D., Ph.D.
Suite 204
Denali Professional Center
3401 Denali Street
Anchorage, Alaska 99503

Dear Doctor Bach:

In response to your request I have formulated a list of pharmaceutical agents which may be helpful in preparing your legislation. The current graduating class from the Pennsylvania College of Optometry has developed competency in utilizing pharmaceutical agents in the various categories and classifications listed below.

Currently the students at the College develop a theoretical knowledge of these pharmaceutical agents through various didactic courses, and expertise in the clinical utilization of these drugs through a variety of clinical experiences. These clinical experiences occur in various settings such as The Eye Institute of the Pennsylvania College of Optometry, Veterans Administration Medical Centers, Health Maintenance Organizations, Armed Forces Hospitals, and private practice settings.

A major emphasis of the curriculum at the College is the differential diagnosis of ocular diseases and systemic diseases with ocular complications. We feel the critical step in the management of ocular and visual disorders is the specific differential diagnosis. The application of pharmaceutical agents is simply one of the competencies necessary in the continuum of the diagnosis and management of ocular diseases.

Listed below are the major classifications and categories of pharmaceutical agents commonly utilized in the patient care setting of the College. Examples are given of different drugs in each category. This is not to be interpreted that other drugs within these categories are not utilized when specifically needed, based on the professional judgments of the clinician.

- I. Topical Anesthetics
 - Example: Proparacaine
 - Benoxinate

- II. Mydriatics
 - A. Sympathomimetics
 - Example: Phenylephrine
 - B. Parasympatholytics
 - Example: Atropine group

- III. Cycloplegics
 - A. Parasympatholytics
 - Examples: Atropine group
 - Cyclopentolate

- IV. Miotics
 - A. Examples: Pilocarpine
 - Anticholinesterases

- V. Antimicrobials
 - A. Antibiotics
 - Examples: Tetracycline
 - Erythromycin
 - Gentamicin
 - Chloramphenicol
 - Bacitracin
 - Cephalosporins
 - B. Antibacterial
 - Example: Sulfonamides
 - C. Antiviral
 - Example: Idoxuridine
 - D. Antifungal
 - Example: Natamycin

- VI. Anti-inflammatory
 - Example: Corticosteroids

- VII. Anti-glaucoma
 - A. Sympathomimetics
 - Example: Epinephrine
 - B. Sympatholytic
 - Example: Timolol Maleate
 - C. Parasympathomimetics
 - Examples: Pilocarpine
 - Anticholinesterases
 - D. Carbonic Anhydrase Inhibitors
 - Example: Acetazolamide

VIII. Antihistamines

Examples: Diphenhydramine
Antazoline

IX. Miscellaneous Legend Drugs

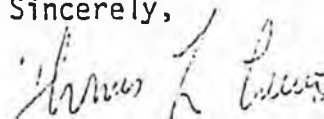
Example: Hyperosmotic Agents

X. Over-the-counter Drugs

Example: Dyes
Ocular Lubricants
Decongestants

I hope this list is of some help to you in constructing your new legislation. The Pennsylvania College of Optometry stands prepared to assist you educationally in meeting the visual care needs of the people of Alaska.

Sincerely,



Thomas L. Lewis, O.D., Ph.D.
Dean of Academic Affairs

TLL:dmf